CANADIAN PACIFIC'S BIG HILL

A Hundred Years of Operation

by

FLOYD YEATS

INTRODUCTION

In 1985 the Canadian Pacific Railway celebrates the centenary of the completion of its mainline, the last spike having been driven at Craigellachie, B.C. on November 7, 1885. The first through transcontinental train left Montreal on June 28, 1886 and arrived in Port Moody six days later.

This volume represents a tribute to the Railway on such an important occasion. We have chosen 20 miles of the original mainline for such a purpose because within that short stretch is one of the greatest concentrations of engineering and operating problems. A photographer's dream, there is an excellent variety of equipment in the selection of pictures that we have included and while it has not been possible to include all types of motive power that operated on the Hill, we believe that all the major classes are illustrated.

As of November 1883, the end of track was at Laggan, later renamed Lake Louise, and extremely difficult country lay ahead. First, it was necessary to get up to the Continental Divide at Stephen (5,332 ft.) and this required a six mile climb with grades of up to 1.8%. Having almost reached the summit by the end of the 1883 construction season, the builders were faced with the steep sided valley of the Kicking Horse River and the 1,260 foot descent from the Divide to Field, a distance of ten miles.

Several options were considered for the grade beyond the summit. One of these, involving a line high on the slopes of Mount Stephen with a tunnel through the shoulder of that peak, would have been several hundred feet above the present site of Field and thus the town would never have been built. Eventually it was decided to lay track to Stephen and then straight down to Field with a 4.5% grade and three safety switches as a preventive measure against runaway trains and cars.

Field was named after an American businessman, Cyrus W. Field, who visited the area in 1884. The Company reached this location in that year, having built several bridges and a short tunnel on the way. This line was used until 1909 when the famous Spiral Tunnels were opened, reducing the grade by 50% and adding four miles of track.

I had the privilege of working with many train and engine crews who operated on the old Hill including my father, George Yeats. I will never forget the stories of runaways and accidents that they told, and I have to agree with my father that those were the days of wooden engines and iron men.

I was born in Field in 1919 while my father was pushing on the Hill as a fireman and although living there for only two years, I guess railroading got into my blood. In 1938 at the age of 18, I started on the C.P.R. and spent the next 41 years working all directions out of Calgary with a large part of that time west of the city to Field. My last seven years with Canadian Pacific were spent working on Trains No. 1 and 2, the "Canadian", east and west of Calgary and I got to know and love the mountains, especially Field Hill.

To me this is the most fascinating 20 miles of track on the whole C.P.R. and I would like to dedicate this book to the many old rails I knew and worked with over the years, such as Billy Adamson who started in 1898 and spent his whole life on the Hill; others include Otto Flegal, Harry Chapman, Bill and Smokey Dietz, Orville Sinclair, Seth Partridge, Dick Gain, Jim Rourke, Eddie Lemeaux, my uncle Russell Jamieson and many other fine train and engine crews. Last but not least, this is for my father, George Yeats, who worked from 1907 to 1947, spending much of his time on the Big HIll.

For some time I have thought that a well illustrated book should be written about Field Hill, as to my knowledge this has not been tackled. Since 1985 marks the hundredth anniversary of through service, this seemed an appropriate time. I have received encouragement and a lot of help from my friends Don Bain and Martin Booth of the B.R.M.N.A. and am grateful for the assistance of Nick and Willie Morant of Banff, Bruce Chapman of Ottawa, Doug Phillips of Calgary and Lance Camp of Port Coquitlam. In addition to contributing photographs, Jan Booth did all the typing, while Geoffrey Lester provided the map. My thanks to all the photographers and those who made prints available. This has been a labour of love and I hope readers will find it an interesting and enlightening account of railroading on the Big Hill for the last hundred years.

Calgary, Alberta
January 1985

Floyd Yeats

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FROM THE PUBLISHERS

Floyd Yeats has been the source of great encouragement and assistance since Martin Booth, Bill Cruickshanks and I first started working on *Canadian Pacific in the Rockies (Volume One)* in January 1978, and he has contributed ideas, suggestions and information to every volume in the series. Therefore, it gives us very great pleasure to welcome Floyd to our ever-growing list of authors. When he first put forward the idea of a centenary work on Field Hill, we knew that it would be enjoyed by railway fans, professional railroaders and modellers alike. However, our standard format would not do justice to the topic because there were just too many locomotive types and locations to be covered. As a result, we decided to go with a 50 page format, which has meant an increase in price as our costs have practically doubled. Nevertheless, we think this will prove to be the definitive work on the first 100 years of operations on Field Hill. As far as possible, it has been designed as a "stand alone" work but the larger sized photographs have precluded repeating some details that are included in *Canadian Pacific in the Rockies*. Unfortunately, we have been unable to locate a suitable photograph of No. 8000 on the Hill, and we have not included a shot of a 4-4-0, since these locomotives rarely ran between Field and Lake Louise. Some of the early photographs have been published elsewhere but the majority of the later ones have not been seen before.

It has been a great pleasure working with Floyd and we hope that you will enjoy this book as much as we have.

Donald Bain

FRONT COVER

Heading a westbound grain train, No. 5391, a P2f 2-8-2 coal-burning stoker equipped locomotive built in October 1928 by Montreal Locomotive Works, crosses the Continental Divide at Stephen, B.C. after climbing up from Lake Louise. There is no head-end pusher, suggesting that part of the train has been left at Lake Louise because allowable westbound tonnage out of Calgary was reduced considerably at this point due to the increase in grade. The operator is "hooping up" orders to the engine crew and will repeat the procedure at the caboose.

To the left of No. 5391 is the passing track. Beside it are storage tracks for "Hill turns" which were made up of extra tonnage that accumulated at Field and Lake Louise due to power shortages. Engines would haul the cars up from Field to Stephen where they would be left for the next eastbound train to pick up and handle downhill to Calgary. Meanwhile the engines would run to Lake Louise, pick up the set off westbound tonnage and return with it to Field. This took place several times a week and was not very popular with Calgary-based train and engine crews as it meant a longer layover in Field.

A short distance west of this point the grade starts downhill and on one trip we arrived here with a 5900 that had not been steaming very well up from the Lake. The engineer stopped for about ten minutes while I added more water to the boiler. If we had not done this and started down, the two inches of water on the crown sheet would have been reduced to nothing because of the grade, resulting in a boiler explosion. Hence we learned by working with these older, more experienced men.

Soole Collection, National Railway Museum

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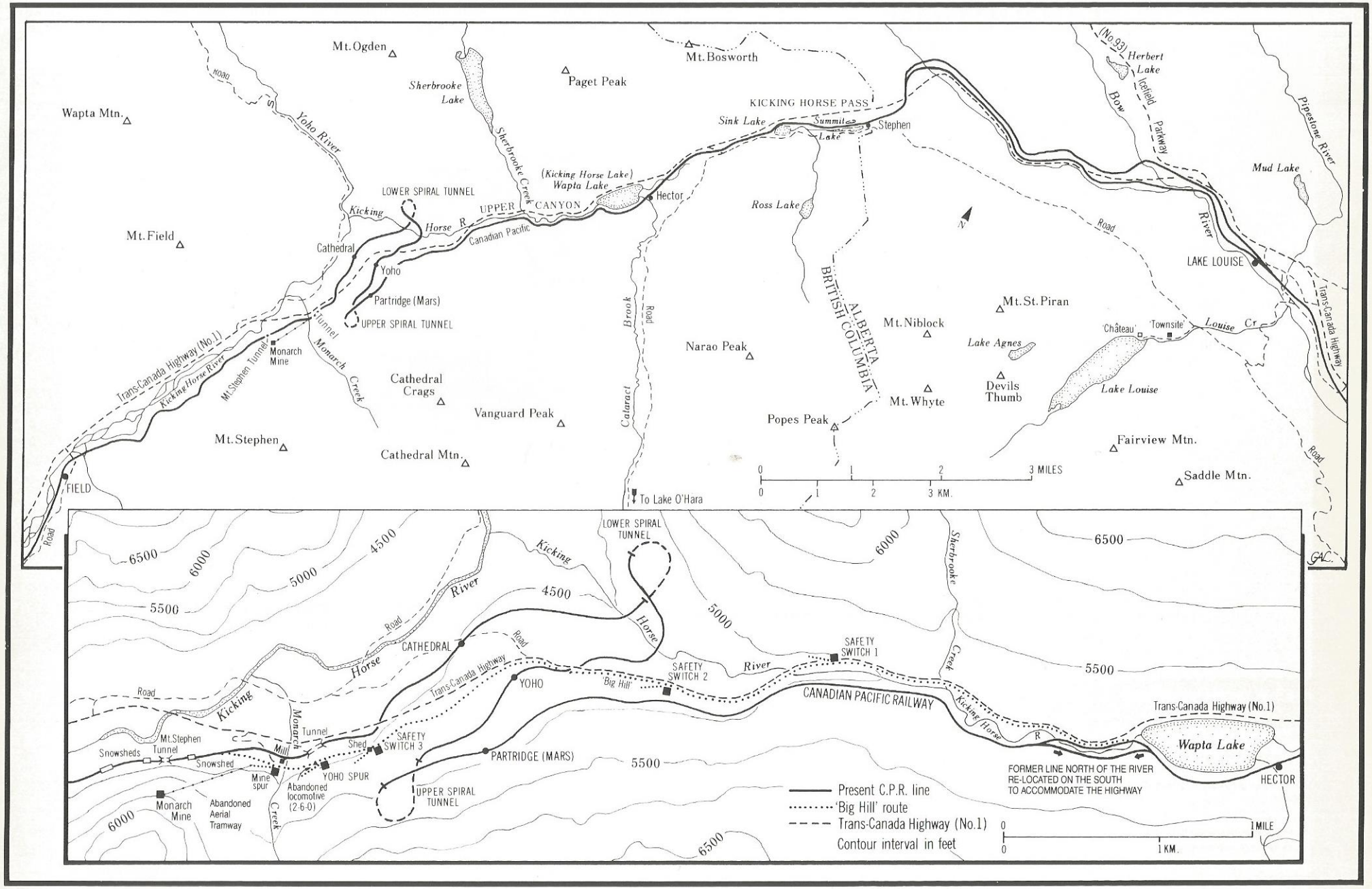

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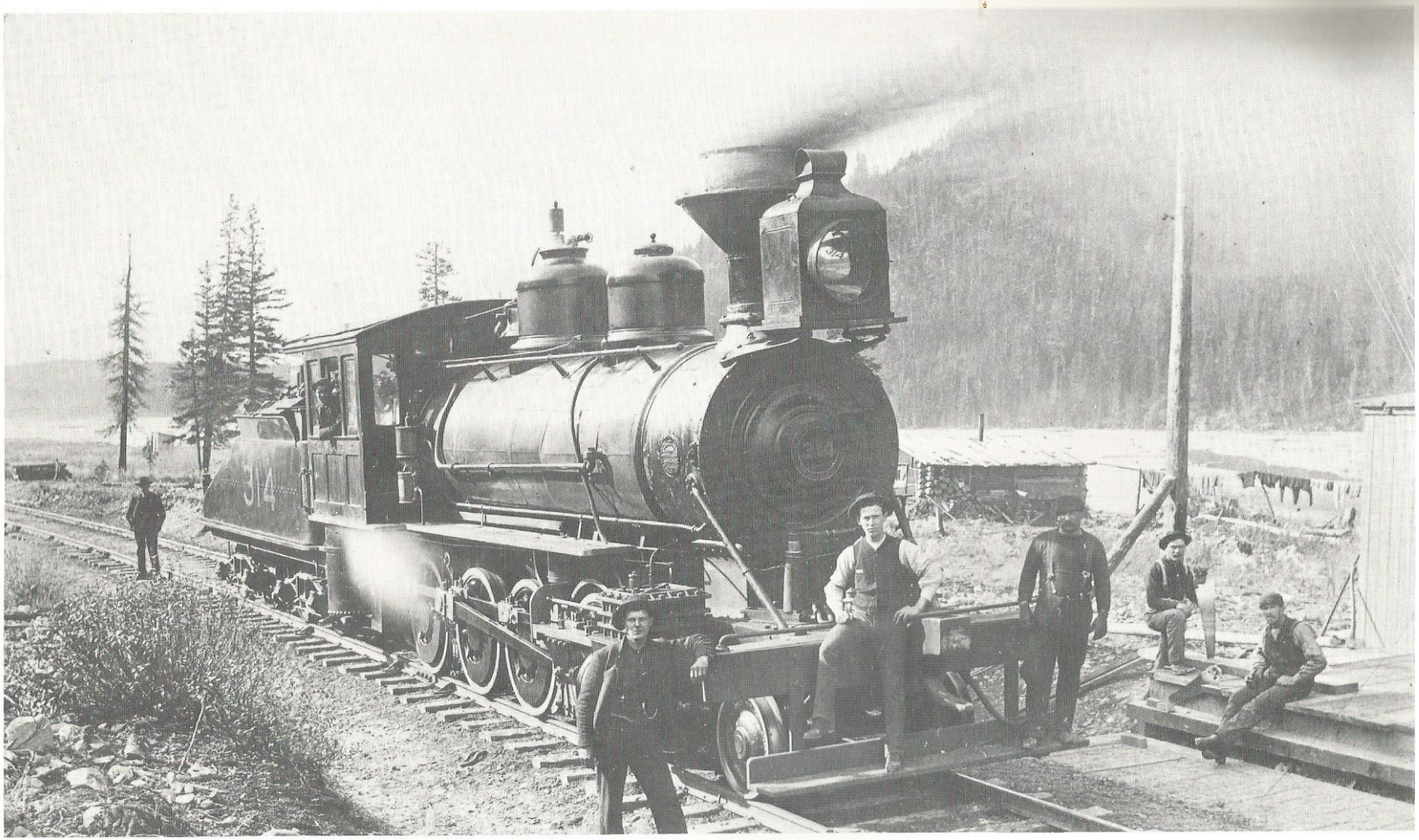
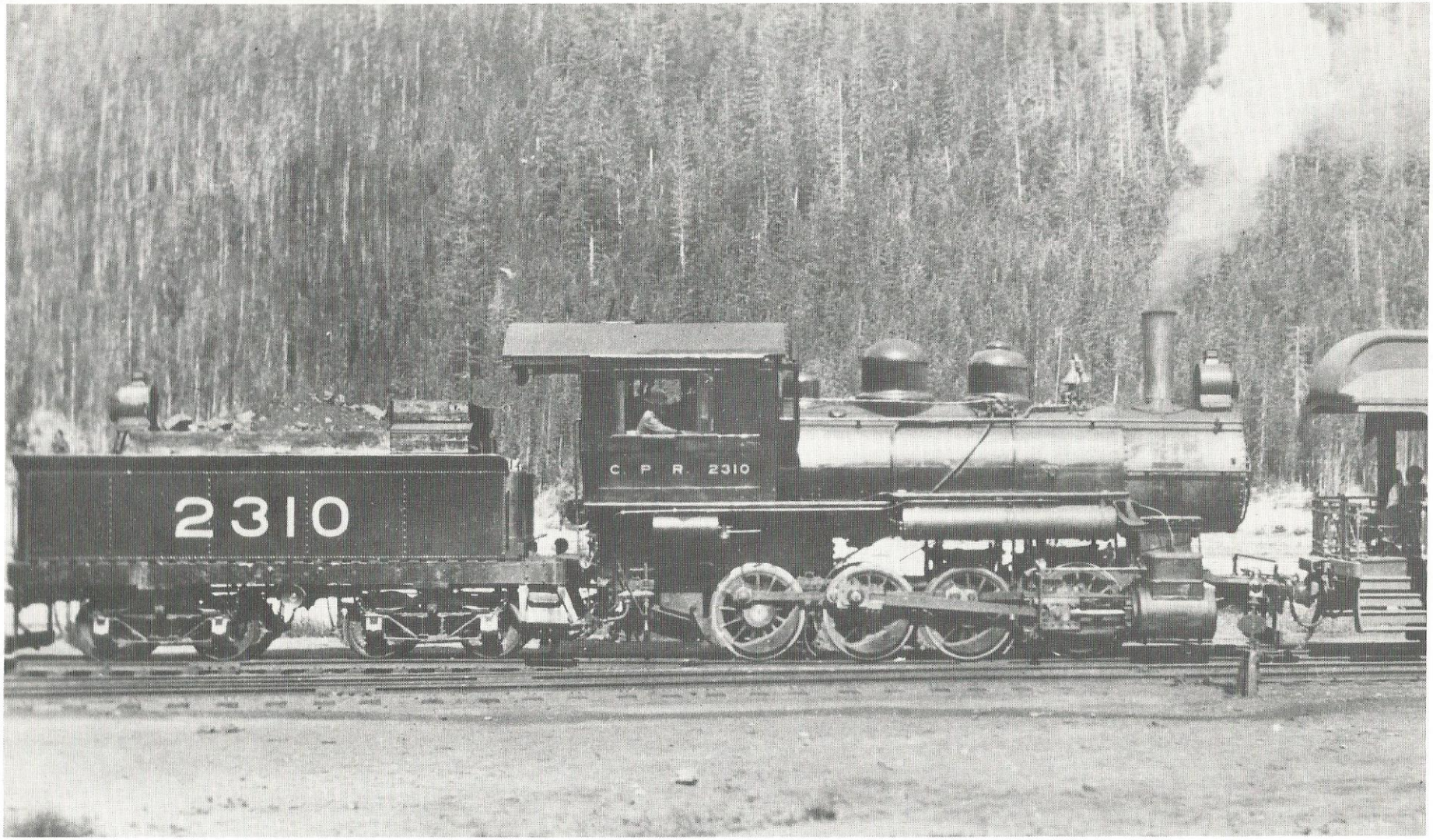


Wm. Notman and Sons

One of four "Consolidations" built by Baldwin Locomotive Works between 1884 and 1886, No. 314 is a coal-fired 2-8-0 with a boiler pressure of 165 lbs. per square inch. Although equipped with a switch engine tender, these engines acted as pushers and had a headlight but no pilot catcher.

One bitterly cold night in January 1889, No. 314 was involved in the first major mishap on the Hill. Starting down the hill with 14 loads of coal, engineer Jack Spencer, conductor Bob Nelson and fireman Charlie Fidler as well as two brakeman, Phelan and Brown, she passed the first two safety switches. At the third switch there was a new man, Rafferty, who, thinking that he had heard the four whistles which indicated that the train was under control, opened the switch to allow it to continue down the mountain. Unfortunately, the train could not be held despite the tender brakes of the engine and the efforts of Nelson, Phelan and Brown to apply more hand brakes. They and the engine crew prepared to bail out about the same time. The train slammed into the rock wall killing brakeman Phelan instantly, while fireman Fidler had both legs mangled and died on the way to hospital. The rest of the crew escaped with minor cuts and bruises. After the accident, engineer Spencer never had the heart to work on the Hill again and was transferred to a passenger train run between Swift Current and Medicine Hat. At a later date, engineer Tommy Fawcett piled one up on the spur of No. 3 safety switch but very little damage was done and there was no loss of life. For all the hazards involved in operating on the Hill and contrary to general rumour, accidents were, and still are, few and far between.

No. 314 was repaired and returned to service but, alas, while operating as a pusher in the summer of 1895 she blew up. Engineer Wheatley and the fireman were killed, the latter found with the injector handle still clenched in his lifeless hand. After being rebuilt, the engine was renumbered 1320 in 1905 and then seven years later became No. 3120. She was scrapped in 1917 but her dome is now on display at the Spiral Tunnel viewpoint beside the Trans Canada Highway. I should also mention that Willie Morant, wife of photographer Nick Morant, is the granddaughter of Mr. Wheatley.

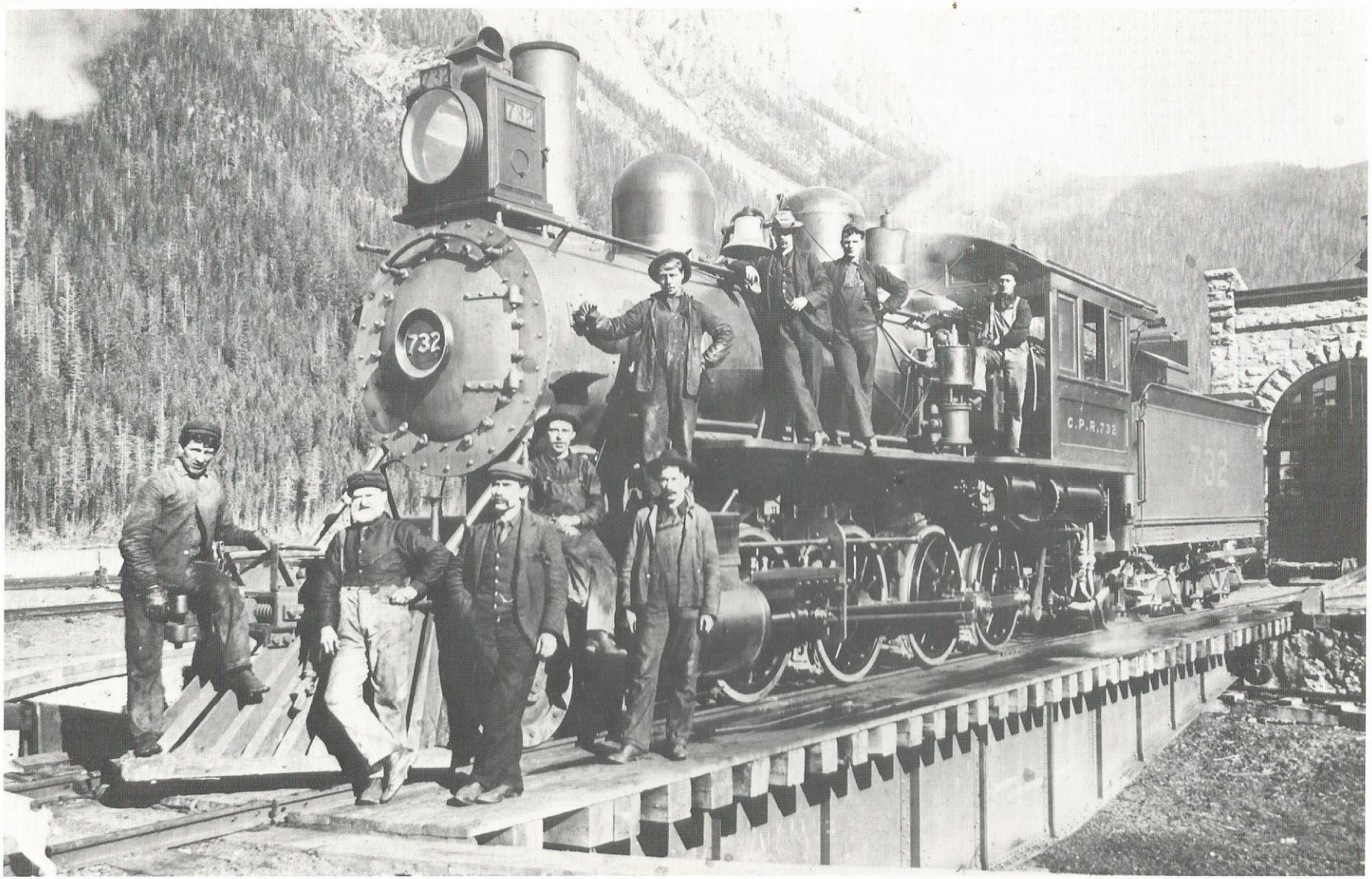


Collection of Harvey W. Elson

This photograph, taken at Field sometime between 1910 and 1912, shows No. 2310, a hand-fired coal burner, as a pusher on the tail end of a passenger train. The train air is coupled into the pusher and the brakes are controlled by the engineer on the lead engine at the head end. Should an emergency, such as a snow slide, develop on the head end the train could be stopped safely without the pusher going halfway through the passenger coach.

No. 2310 was built by Baldwin in 1898 as No. 686 but in 1902 she was renumbered 903 and three years later became No. 1352. After wearing the number 2310 between 1910 and 1912, the engine became No. 6810 and remained as such until scrapped in 1940. Note the wide open cab. In later years Canadian Pacific introduced a vestibule design as seen on 5800's and 5900's, which was quite warm and comfortable to work in. However some U.S. railroads used the wide open cabs with canvas side curtains right up to the end of steam.

Compare the pilot of No. 2310 to that seen on page 5. The long pointed pilots were not suitable for use on pushers because there was no place to stand and pull the pin to cut off the pusher. If you didn't mind the dirt and cinders, the platform of the passenger coach was a great place to see Field Hill and watch a pusher at work, as long as you went inside before going through the tunnels.



Glenbow Archives

No. 732, a 2-8-0 built by Baldwin Locomotive Company in 1899, stands on the turntable at Field. With her 51" drivers and 20" × 26" cylinders, she may have been brand new when this picture was taken, judging by all the attention she is getting. However, one of the problems that photographers faced at this time was that they only had to set up their cameras and people would appear from everywhere to get into the picture. On the other hand there is still a link and pin coupler on the front above the wooden pilot which would indicate recent delivery. Link and pin couplings were dispensed with in the early 1900's. These wooden pilots, used on some engines into the 1950's, had a big advantage because if you hit a rock and the pilot was forced under the pony trucks, it could be chopped out with an axe. In the same situation with a steel pilot, long delays often resulted.

In 1902 the seven engines of this class were renumbered 1076 to 1082, and then three years later became Nos. 1380 to 1386. Classified as L5a and renumbered yet again in 1912 as 3180 to 3186, they were eventually scrapped between 1928 and 1938.

This turntable, Field's first, was a steel deck plate girder probably 60 feet in diameter and would have been "Armstrong" powered — that is, manually operated. In 1902 it was replaced by a 70 foot half deck girder built by Dominion Bridge and this remained until 1929 when a 100 foot turntable was installed to accommodate the large T1a 5900's coming out that year. The rail into and on the table appears to be the original 56 lb. main line rail. Although concrete would be used later, notice the wooden rim of this turntable pit.

Judging from the size of the watch chain worn by the man third from left, he must be a foreman or conductor. The more important a man became in those days, the larger his watch chain seemed to be.

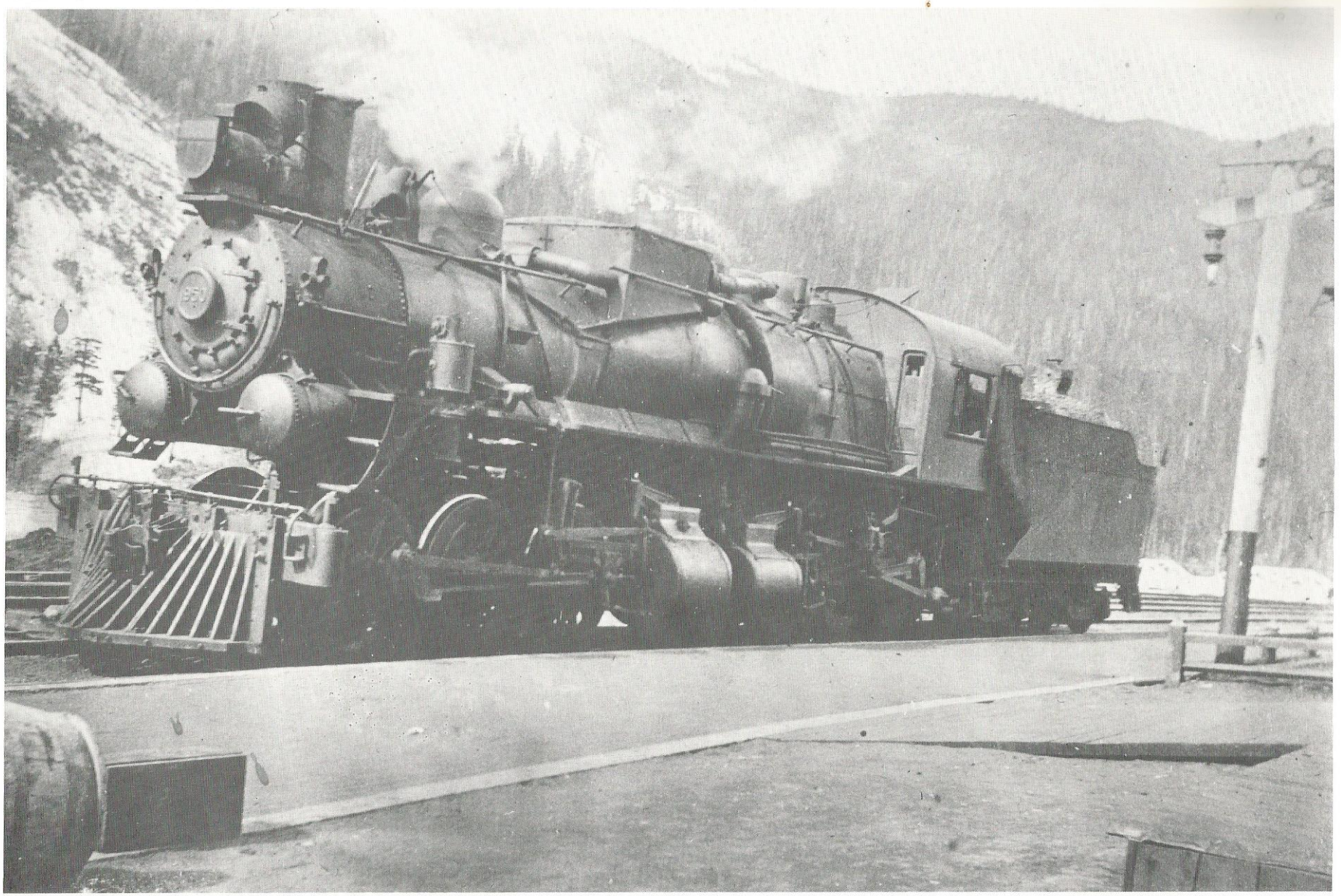
In the background is Mount Burgess and the original pre-1900 two stall roundhouse. It was the work of stonemasons brought over from Scotland to construct many of the bridges and buildings when the railway went through in 1884. Still standing today, together with two newer stalls built in 1909, they are used for storage and are a reminder of an age when workmanship was of a very high quality.

C. Littlebury

Train No. 7, the "Trans-Canada Limited", stands at Field station westbound in July 1924. Engine No. 586 was one of 38 4-6-0 D9c's built in 1903 at Schenectady, N.Y., with 21" × 30" cylinders and 63" drivers. Originally numbered 1300 to 1337, they had a boiler pressure of 190 lbs. per square inch, 34,000 lbs. tractive effort with 167,000 lbs. on the drivers. Several of the class were oil burners like this one and had a fuel capacity of 2,500 gallons. They worked on the main and branch lines in B.C. The coal burners carried 10 tons of fuel and 5,000 gallons of water. Engine crews like the D9c's because their boilers were in proportion to their cylinder size, making them free steamers. This was in sharp contrast to the 3600 N2 class which had cylinders too big for the size of the boiler and were man killers to hand fire. Some of the D9c's were still around in the 1950's so they had long lives.

The bridge across the Kicking Horse River leads to the stables owned by Brewster Transport of Banff. Compare this bridge to that seen on page 13. The rather sporty looking character talking to the engine crew is certainly not one of the local boys! The brick platform was later converted to asphalt, probably because a slight miscalculation when using the flanger wing to plow the yard in winter could easily result in some of the bricks being pulled up. The ice in the wagon beside the first car will be used in the diner and to provide drinking water for the day coaches. This was done at each divisional point which had its own ice house and this had to be filled in winter when ice was readily available. For example, the ice for Field and Lake Louise came out of the Bow River a short distance west of the station at Banff. The original divisional point at Canmore was moved to Laggan in 1899 and then relocated at Field in 1907.

The power to run the lights on the platform was produced in the roundhouse by the Company until the 1950's when it was turned over to the Department of Northern Affairs. Even today there are no hydro lines into Field, the nearest power being at Lake Louise to the east and Golden to the west.



Edward Crump, Collection of N. R. Crump

No. 1950, an 0-6-6-0 "Mallet", is seen at Field sometime between 1909 and 1912. The quality of this picture is poor but photographs of these locomotives on the Hill are rare. The extra flags suggest that she has probably just arrived light from Stephen and, before going to the shop track, the engineer must register in the book in the station so that the dispatcher can run more eastbound trains.

Six 0-6-6-0's, Nos. 1950 to 1955, built between 1909 and 1911, were used as pushers on Field Hill. The first five locomotives were compounds, while No. 1955 was a simple. My father, George Yeats, who operated these engines on the Big Hill, told me that they were greatly disliked for several reasons. There were four cylinders instead of two and flexible piping brought the steam from the high pressure cylinders to the low pressure ones. As a result, steam leaks were common and in winter these made visibility very poor. Secondly, these engines did not have pony trucks under the front end and thus had a tendency to derail on sharp curves. However, with all the engine weight on the drivers, the locomotives had the advantage of better adhesion and, as the crews were paid by the weight on the drivers, every pound helped.

In 1912 No. 1950 was renumbered 5750 and four years later she was rebuilt as a 2-10-0. Note the smoke deflector that was supposed to go over the stack in the tunnels to prevent damage to the roof. In fact, these were not used very much by the engine crews because they sent the smoke and cinders into the cab. Also worth mentioning are the air-reservoirs which had to be hung under the smoke-box because there was no room above the drivers due to the four cylinders.

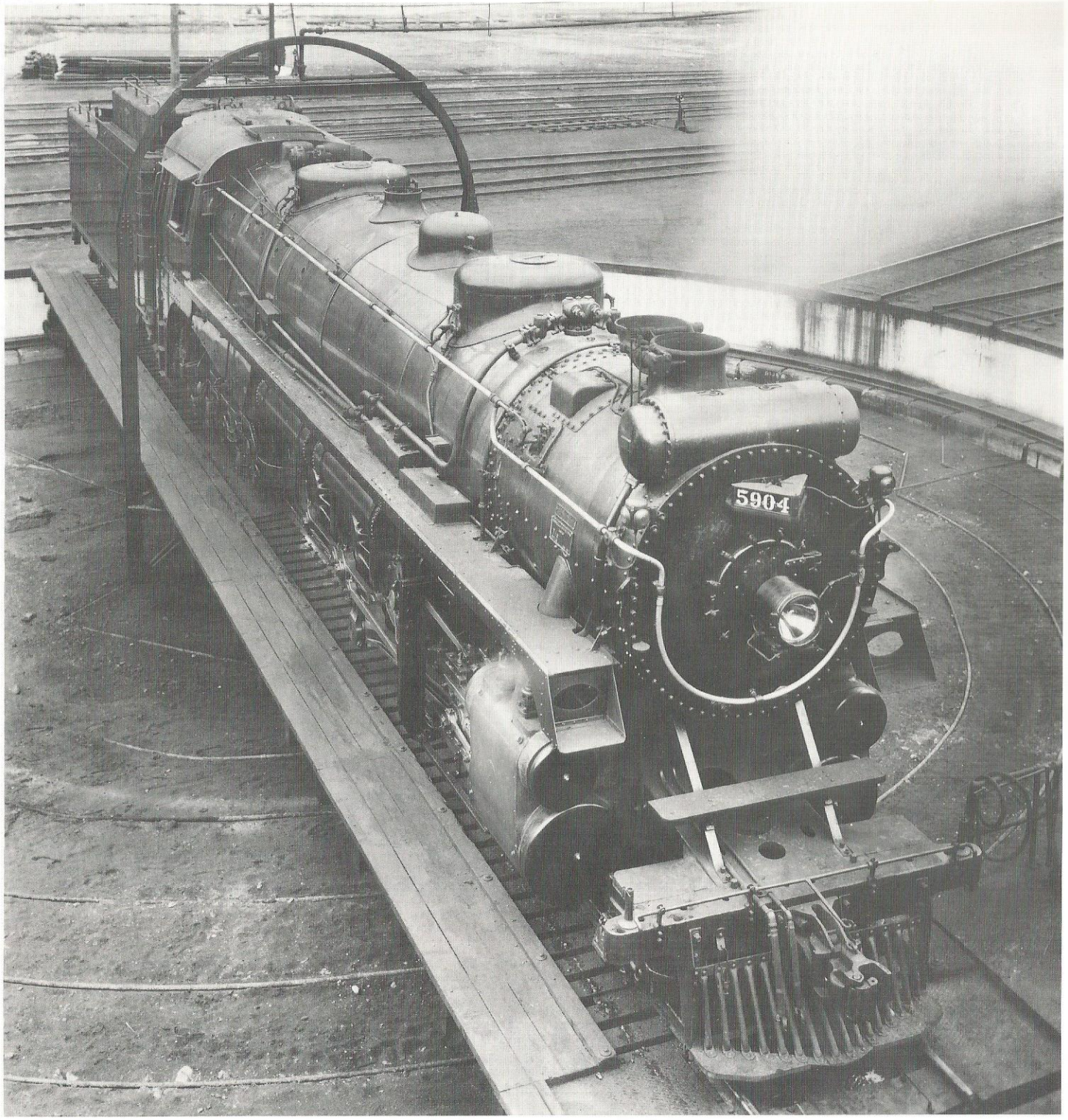
Field station is out of the picture to the right but the train order board and the gas station platform lights can be seen.

John C. Illman

No. 5812, a 2-10-2 built in 1920, stands in Field station in July 1952. The extra flags suggest that she has just run down light from Stephen and the engineer is probably in the station signing the register book before heading to the shop track. The majority of the S2a class spent most of their working lives in pusher service in the mountains. A real workhorse, they were well liked by both engine and shop men especially after conversion to oil-firing.

No. 5812 spent many years working out of Medicine Hat in pusher service to Dunmore, Redcliff and Bowell as well as pushing eastbound tonnage from Suffield to Bowell. Because there was no oil at Medicine Hat at that time, it was necessary to use a coal burner. She had a duplex stoker with a coal elevator on either side of the firebox. When hauling a train with the engine wide open, you could hardly talk in the cab because of the engine noise and the clanging of the elevators.

Later, a decision was made to send No. 5812 to Field for pusher service. Instead of converting her tender for an oil-burner, the tender from No. 8000, the multi-pressure high pressure locomotive, was used. I can confirm this since I saw the identification plate on the lower right front corner above the hose bag. This engine, which had been in service in the mountains a few years earlier, has been adequately dealt with in earlier volumes of Canadian Pacific in the Rockies. The tender, with a capacity of 12,000 gallons of water and 4,100 gallons of oil, had 12 wheel trucks and was much bigger than the regular 5800 tender with the result that it looked out of proportion — as if the tender were wagging the engine. The large supply of oil made the engine well-suited for use in providing overnight heating for tour coaches such as those used by Banner Tours (see page 50). Notice the station board showing six passenger trains a day at this time.

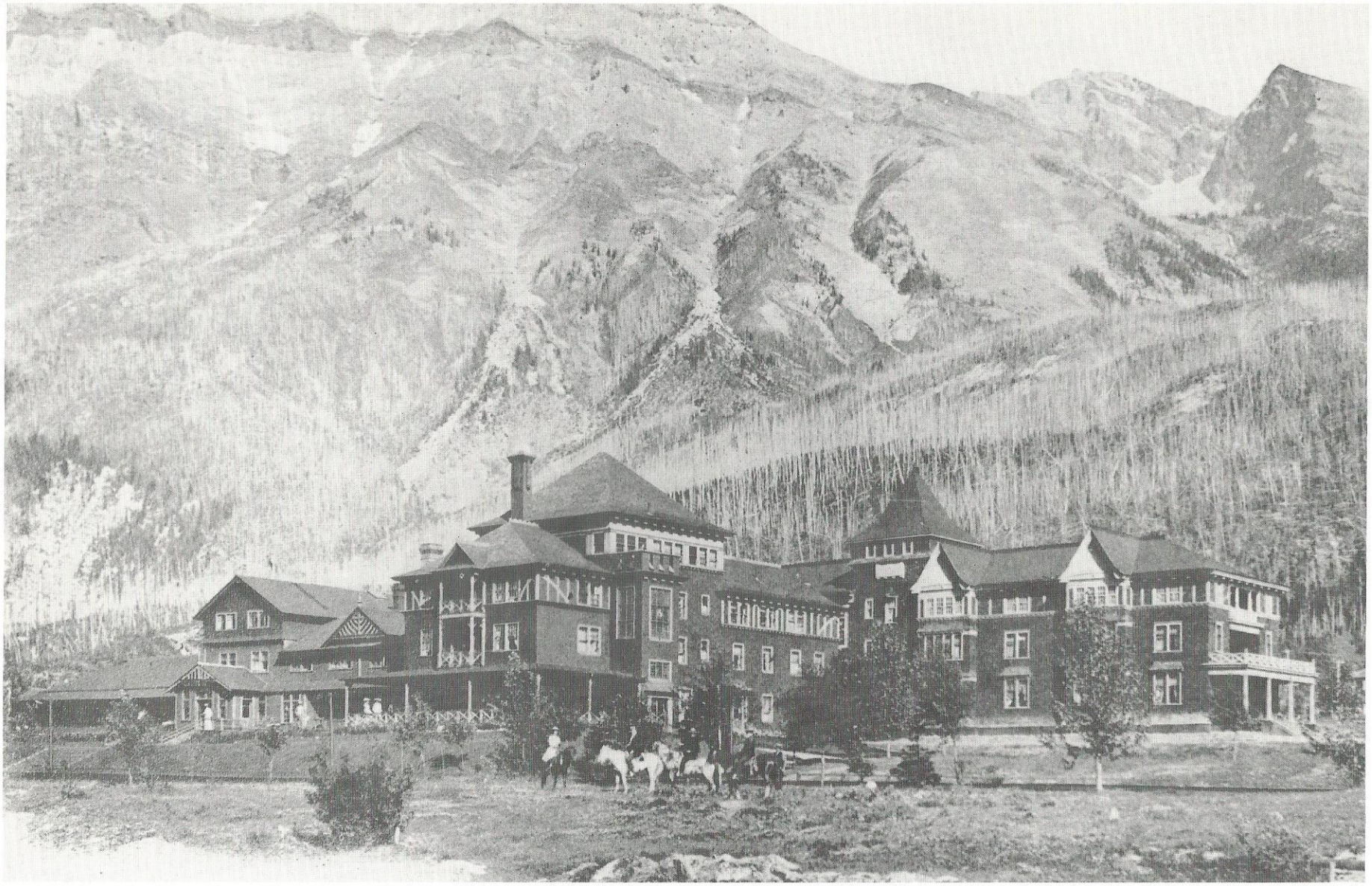


Seen standing on the turntable at Field, No. 5904 was one of 37 engines built with a 2-10-4 wheel arrangement to work between Calgary and Revelstoke. All the 5900's were well liked by their crews because they had comfortable, warm cabs, were normally very free steamers and sure did a good job on the Hill.

These engines had to be balanced very carefully on the turntable. If they were too far back, the turntable would tip up slightly and the air-operated motor, seen to the right of the pilot beam, would not engage the turntable track. On the other hand, if the engines were too far forward the weight would be too great and the table could not be used. This turntable was the third one built at Field and is still in use although regrettably not for steam engines. On one occasion I saw a hostler rotating the deck to chase a bear that had fallen into the turntable pit, but when that mad bear managed to climb out, the hostler sure disappeared into the roundhouse in a hurry!

Notice the steam pipes on the floor of the turntable pit which melted the heavy falls of snow in winter. In this view the smoke deflector behind the stack is operated by compressed air from the cab although it was generally not used and frequently dismantled by the engine crews. Below and to the left of this is the multiple throttle box and the reach rod going back through the handrail to the cab. The front and back domes are for sand since large amounts are required in mountain railroading. The second sand dome was removed after only a few years of service as it was found unnecessary to sand the rear drivers.

C.P. Corporate Archives



Collection of Floyd Yeats

Mount Stephen House at Field, seen above, and its counterparts, Glacier House at Glacier, B.C. and Fraser Canyon House at North Bend, B.C., were originally built to avoid hauling a dining car on trains between Vancouver and Laggan. For example, in 1892, the eastbound trans-continental train stopped at North Bend for supper, Glacier for lunch the next day and Field for supper. In those days one less car could be very important because it could mean one less pusher required in three different places with a big saving in fuel and wages. In 1918 Mount Stephen House was sold to the Y.M.C.A. for a token amount.

The building was the hub of all activity in Field since it had a large dining room seating 200 people, a novelty shop, a barber shop, a 125 seat theatre, a pool room, a large card room and library as well as over 60 rooms for tourists and railroad workers. In 1903 rates were $3 per night. The restaurant had two prices, the regular price for tourists and roughly two thirds of that for railwaymen. For the latter a very popular item on the menu was "Graveyard Stew", a bowl of small squares of toast in warm milk and covered with brown sugar. It was very filling and until fairly recently was still served in the bunkhouse. Dr. Cheeseman, who brought me into the world, had his office and dispensary at the right hand end of the ground floor. The building also functioned as a railroad waiting room since Field station was very small and used mainly by the operator and the yard master.

Sitting around the huge fireplace in the card room of Mount Stephen House and listening to the tall tales of old rails, both shop and road, was the source of much of my information about the Big Hill. You didn't get much sleep there at night because several trains, each with three or four engines, blasting their way up the Hill really shook the place. However, if you liked trains then it was the place to stay and spare rooms were hard to come by in the summer.

In the late 1940's the original part of the building, the left part in the photograph, was pulled down and the rest followed in 1954. It was replaced by a modern rest house for train and engine crews from Revelstoke and Calgary.

C.P. Corporate Archives

An EMD built FP7A and two F7B units, Nos. 7001, 7002 and 7003, on loan to C.P. from the manufacturer between November 30, 1949 and March 13, 1950, are shown westbound in front of Field station. They have drawn quite a welcoming crowd, both railway people and townsfolk, because the appearance of a diesel here was rare. The only previous occasions were when the Baldwins came through on their way to the E & N on Vancouver Island and when a few yard engines were sent to Vancouver yard. Initially, a dynamometer car accompanied these engines but later testing continued without it. Eventually these locomotives wound up on a C.P. subsidiary, the Soo Line, as No. 2500A, 2500B and 2501B.

I caught these units off the spareboard out of Field one morning during a blizzard. Called for 4 a.m., I was not looking forward to a dirty, cold trip home on a coal fired 5400 but when I got to the shop to book out, I had quite a surprise as these units were running through. Picking them up at the far end of the platform, I will never forget how warm and comfortable they were. With no smoke or steam, front windows with no boiler ahead of you, I couldn't get over the wonderful visibility and we went through several small slides as if they didn't exist.

Until the blue flag on the right front of No. 7001 was taken down by the shopmen working on her the unit could not be coupled onto or moved. No doubt the crew of the yard goat, a 5700 R2 2-10-0 to the left of No. 7001, are taking a good look at the new power, the shape of things to come. C.P.R. built a total of 41 "Decapods" between 1916 and 1919, six of which were rebuilt from the 0-6-6-0 articulated locomotives in 1916 and 1917 (see page 7).

The original station here was replaced by another in 1917 at a cost of $3,925 and this can also be seen on page 8. In 1953 a single storey building was constructed for $80,000 and is still in use although modified over the years.

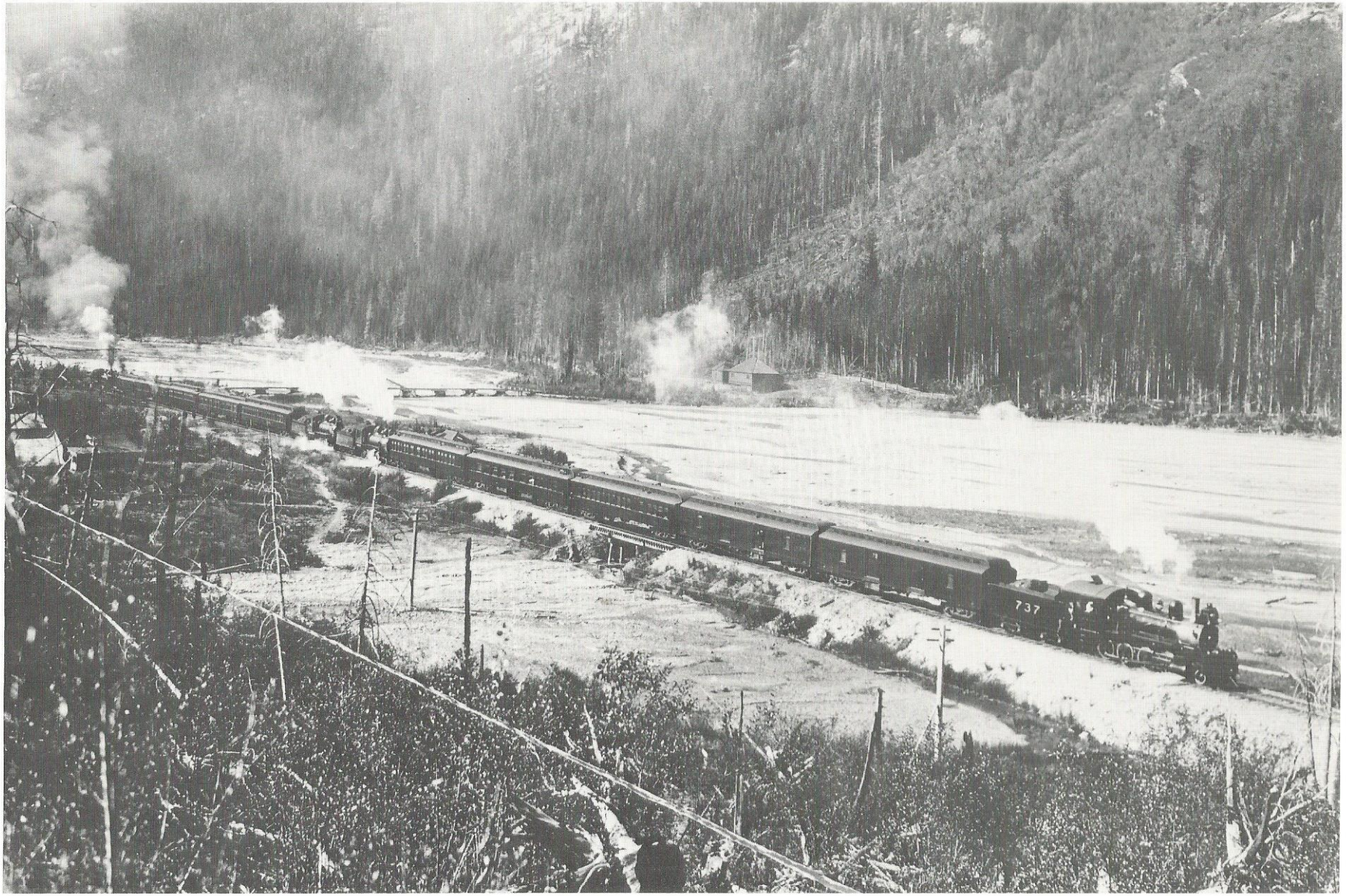
Martin Booth

This unusual photograph taken on October 11, 1981, shows Trains Nos. 1 and 2, the "Canadian", meeting at Field station. On September 29, 1980, these trains were rescheduled to run through the Rockies during daylight hours. As a result, the trains usually pass each other between Field and Golden, most often at Palliser but occasionally at Glenogle or Leanchoil. Since Train No. 1 has a 2½ hour stop in Calgary, it is generally more or less on time but on this particular day it was late. Arriving at Field behind three Geeps, the train crept dead slow into the track north of the station which is normally used only for access to the wye and periodically for work trains. Needless to say, the track is in less than perfect condition! Train No. 2, headed by No. 1405, arrived on time shortly after and there was a flurry of excitement, a reminder of the grand old days when there were four, six, even eight trains a day. The last time that Field saw two regularly scheduled passenger trains at the same time was in the early 1960's, before the demise of the "Dominion".

With the trains at either side of the station, both have access to water at the same time and the hoses in the foreground are for this purpose. The units have plenty of fuel for the trip between Revelstoke and Calgary but if there should be a delay due to a slide or derailment for example, then water for the steam generator would become a problem. However, water is available at Golden, Lake Louise and Banff.

Canadian Pacific left nothing to chance on the Big Hill and in the one hundred years of operation there has never been an accident involving a passenger train that resulted in the death of a passenger. Quite a feat considering the circumstances of operation.

Note the sleeping and boarding coach of Field's Big Hook which is a very important part of the railroad here, given the risk of slides in the mountains. The tank on the left of the nose of No. 1405 is where the oil burners took on oil and for some reason this still remains. Incidentally, No. 1405 was the unit on which I took my last trip in 1979. The tall red and white tower is for radio communication with the dispatchers in Revelstoke, 125 miles away.

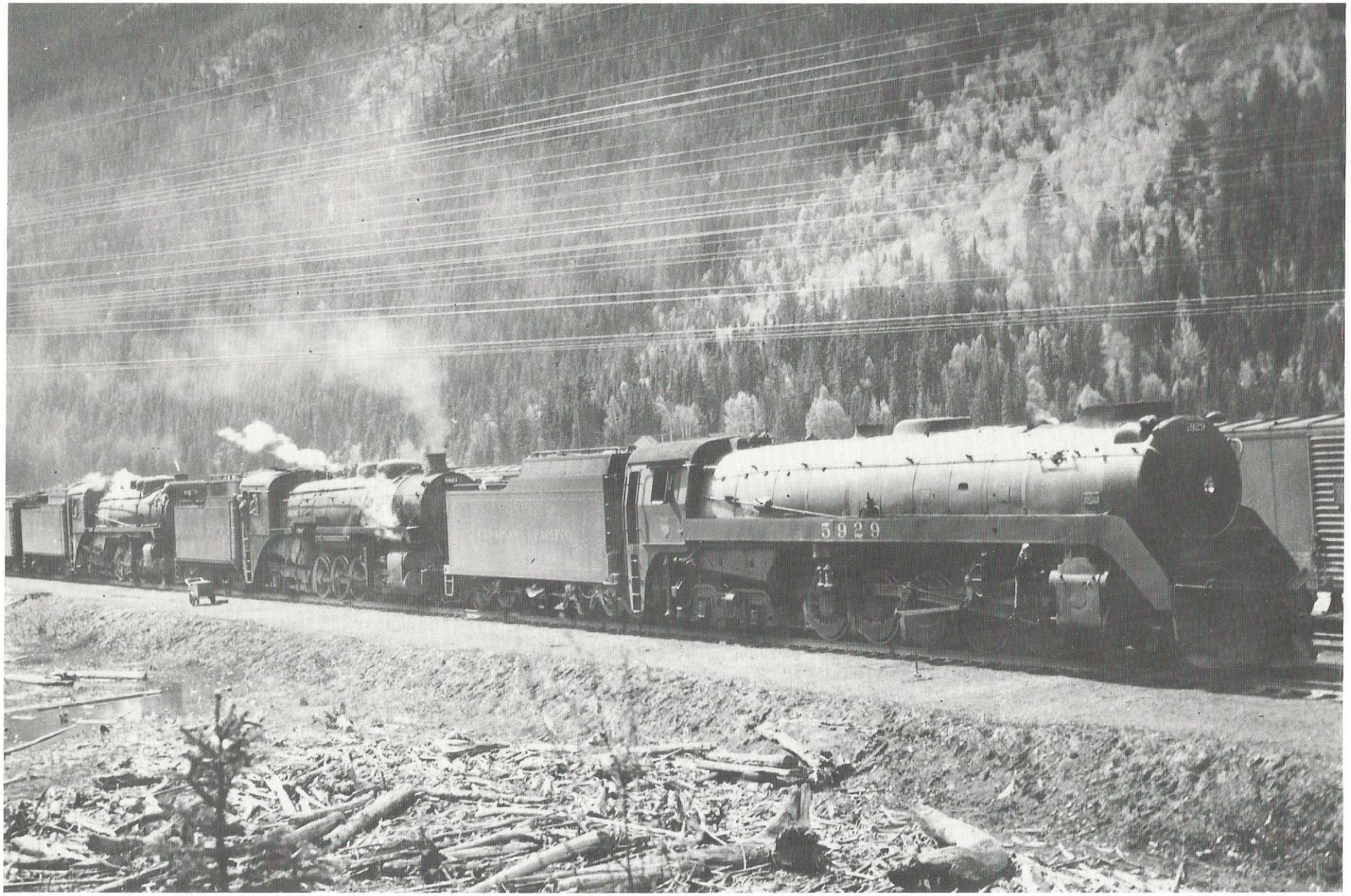


Edward Whymper, Glenbow Museum Collection

In 1901 the Duke and Duchess of Cornwall and York, later King George V and Queen Mary, visited Canada as part of a worldwide tour that also included India, Australia, New Zealand and South Africa. Arriving in Quebec City early in September, the royal couple crossed the country to Vancouver, then went to Victoria on the C.P.R.'s "Empress of India" and finally returned to Halifax again by rail.

On this journey the royal train was preceded — by half an hour — by the Governor-General's train which is the subject of this photograph by Edward Whymper. The date is October 4, 1901, and the train is leaving Field on the return trip, headed by Baldwin 2-8-0 No. 737 built in 1899. The ten car consist required three pushers reflecting the severity of operating conditions on the original hill. However, the royal train, also with ten cars, had an additional mid-train pusher as well as one on the tail end. It is not clear whether this was necessary due to the weight of the specially built cars or because the Company was extra cautious in taking care of its special guests.

Edward Whymper, who also photographed the royal train on this day, is better known for his mountaineering exploits than his work behind the camera. After many years climbing in various countries, Whymper was invited to Canada by the C.P.R. to climb and to write accounts which could be used for publicity. The trips were not a success since, by now 61 years old and an "eminent alcoholic", Whymper apparently proved very troublesome to the railway staff and also did more drinking than climbing. Despite this he appears to have made two more trips with the support of the railway in 1903 and 1904. On one of these trips he was photographed at Revelstoke in the company of Sir James Hector, discoverer of the Kicking Horse Pass. Whymper died in Chamonix, France, in 1911.



Floyd Yeats

It is July 1946 and No. 5929, a T1B 2-10-4, No. 5803, a S2a 2-10-2 and No. 5383, a P2f 2-8-2, head Train No. 8 eastbound at the bottom of the Big Hill.

The road engine, No. 5929, which ran through from Revelstoke to Calgary was usually coupled next to the train. However, in summer some of the senior engineers would take one look at the pusher line-up for the train and if they saw a coal burner such as No. 5383, would demand that she be cut in behind because of the smoke and heat produced by her in the tunnels. On this particular day I was firing No. 5929 for Smokey Dietz and, needless to say, his request didn't hurt my feelings a bit! This change in the line-up would mean no steam heat in the train from Field to Stephen, at which point the road engine would be returned to her original position against the train after the pushers were cut off. In winter it was necessary to keep the train heated at all times and the pushers would always precede the road engine.

Sometimes in the summer as many as five passenger trains would climb the Hill during a three hour period. Train No. 14 the "Mountaineer" would be followed by 1st Train No. 8, 2nd Train No. 8, Train No. 4 and finally Train No. 6, and by the time the last one went up, you could scarcely breathe in the tunnels because of the smoke and heat.

An interesting item is the shopman filling the lubricator above the front driver of No. 5929. This had to be carried out at each divisional point using two quarts of valve oil and the machinist kept all his equipment in the little cart which can be seen beside No. 5803.

C. Littlebury

Two oil burners, No. 5805, an S2a 2-10-2 built in 1920, and No. 594, a D9c 4-6-0 "Tenwheeler" built in 1903, blast out of Field on April 19, 1924. The "Tenwheelers" were very overworked between Calgary and Field and usually had to be helped westbound from Bankhead to Banff and from Lake Louise to Stephen. Invariably they had the assistance of a pusher eastbound from Field to Stephen. The smoke from No. 594 indicates that the fireman is crowding her by using lots of oil in order to produce as much steam as possible to keep ahead of the engineer who could use it faster than the fireman could make it! However, Cyril Littlebury, the photographer, frequently had co-operative firemen arrange such dramatic events.

In its early years the C.P.R. actively promoted the tourist trade both by its own endeavours as well as encouraging others. One example of the latter can be seen in the development of Brewster Transport which started out as packers, guides and operators of livery stables in Banff. The original livery service in Field was developed by Tom Wilson, who incidentally was the first white man to see Lake Louise. In 1904 Wilson sold out to his partner Bob Campbell who in turn sold the facilities to Brewster Transport in 1908.

The buildings seen on the other side of the Kicking Horse River were used by Brewster Transport to house their horses and Tally Hos. The latter were six or eight seat wagons used for taking visitors to Emerald Lake and Takakkaw Falls before the arrival of the automobile. Until the 1920's there were no roads to Golden or Lake Louise and the only way out of the valley for more than thirty years after the coming of the railroad was by train.

The site of the stables is now occupied by a Gulf service station but the first service station here was built by Brewster Transport in 1958.

John C. Illman

This picture taken at Field in August 1952, is a classic. An old, faithful steam engine, in this case S2a No. 5811 which has worked in pusher service for 32 years, is relegated to second fiddle behind the brand new diesels, FP7A No. 4035 and two unidentified B units. In fact, there is a very good reason for this line-up. Every few miles steam engines had to blow the scale out of their boilers using a pipe just below the cab, close to the rail. With the steam engine on the head end, this might get into the traction motors of the diesel causing no end of trouble such as ground relays, etc. Two of these diesels can handle as much as the single 5800 that is coupled behind.

No. 4035 is one of twenty-five FP7A's built between 1950 and 1952. Four of the eleven which were sold to VIA in 1978 remain on the roster while C.P.Rail discontinued using this type in 1982.

The main line switch from the yard must be open as the left semaphore arm is at "stop and proceed at restricted speed" for eastbound trains on the main line. The signal on the other side is at "approach" because the signal at the west end of the yard was always at "stop" due to a split-rail derail at that point which halted any run-away cars or engines from Field yard. When the line was constructed, there was a steep grade westbound out of the west end of the yard as the railway sought to regain the original planned alignment which would have carried the track well above Field. When it was decided to drop the line down the Big Hill and avoid the costly "high line", much of the old alignment was retained. Hence, until the track west of Field was relocated in 1902, pushers had to work west from Field as far as the Muskeg Summit, a distance of about three miles. After that, the track dropped down the Kicking Horse Valley to Golden but until this relocation, Field was a difficult point to work out of in both directions — rather like the present day prairie points at the bottom of valleys, such as Medicine Hat, Brandon, etc.

C. Littlebury

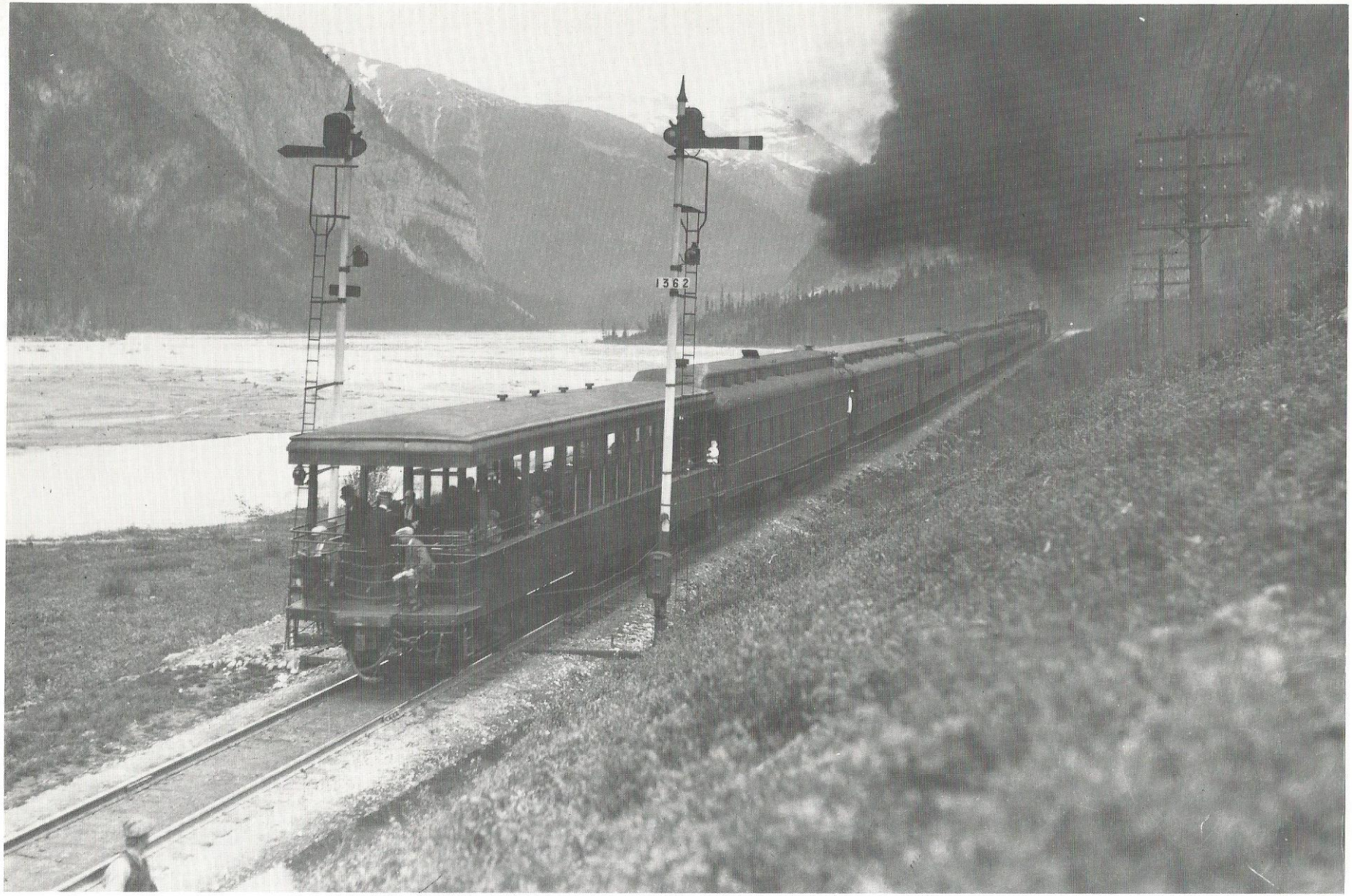
No. 2709 and an unidentified S2a 5800 are seen just starting up the Hill out of Field on August 14, 1921. The square end on the signal signifies that it is an absolute block signal. The arm is beginning to fall and will protect the tail end of this train from following trains or engines. It will remain at "stop" until the train has completely entered the next block a couple of miles away.

By the time the train reaches Stephen the large tender of Canmore coal will almost be gone and the fireman won't have had much time to look out the door. However, after Stephen it is mainly downhill to Calgary and he will get a break. The spare shovel by the coal pile was always needed because you could easily break or lose yours due to the heavy draft of the engines which could take a glove right off your hand. I lost two shovels this way and needless to say, I wasn't about to go into the firebox to get them back! My $100 Hamilton watch was sucked into the firebox when the gold chain broke, so after that I used an old shoelace and never lost another watch!

The pusher engines usually did most of the work since they were only going fourteen miles to Stephen and some pusher hogheads like Malcolm Steves, Albert Tarn and B. C. Waite would sure rattle the windows in the old Y.M.C.A. as they went by.

The box hanging under the tender of both engines contains a fire hose. When this was coupled up to the top check valve where the water was fed into the boiler you had a large tender full of water which was very useful for putting out fires in buildings, cars and forests.

Normally the main line switch at the east end of Field station was left in the closed position. If this was not done, the track would creep a few inches down the hill, preventing the turntable from being rotated. On one occasion I saw a crew cutting off a three inch length of rail from the track leading to the turntable in order to get a locomotive out of the roundhouse.



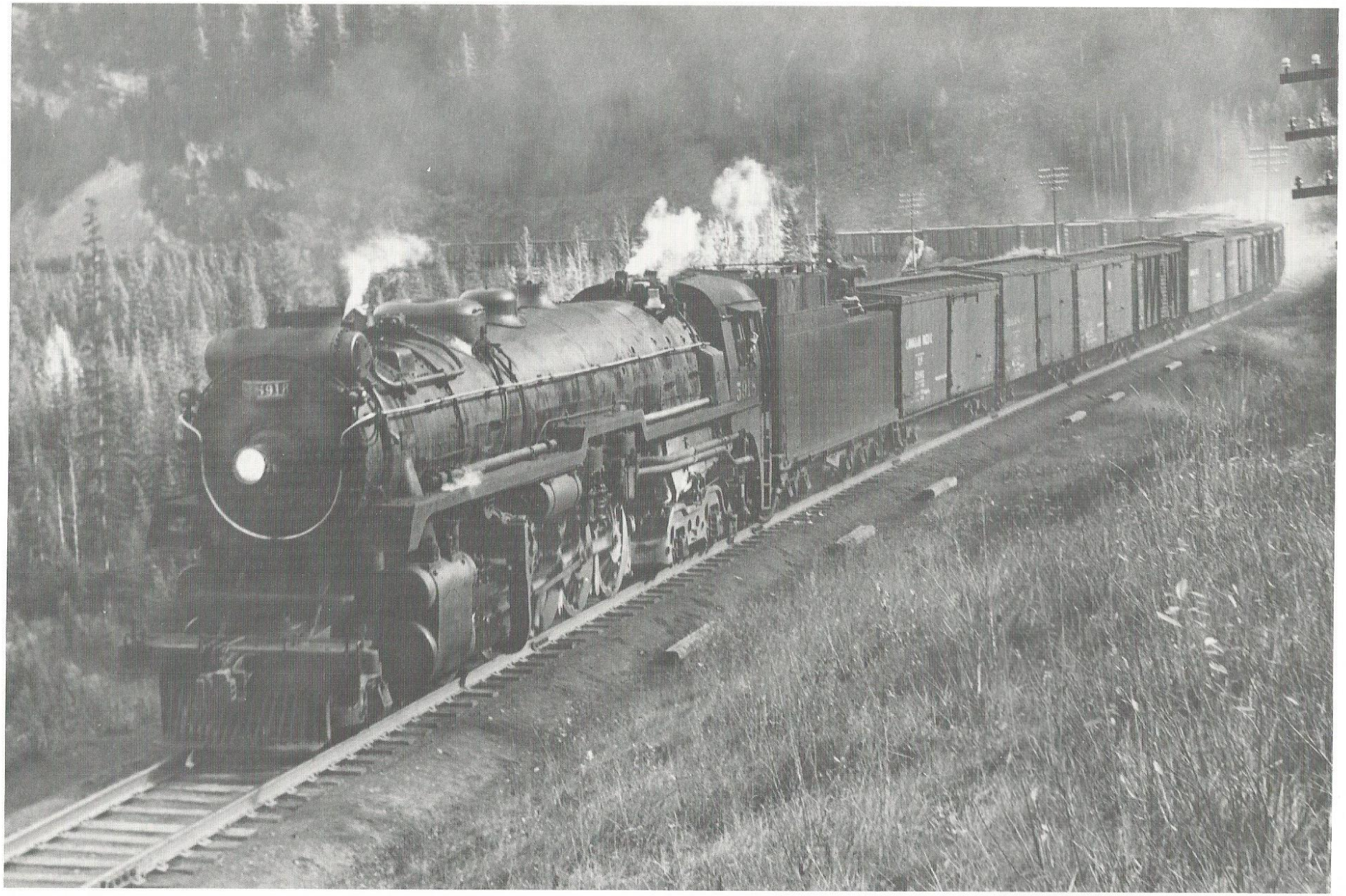
C.P. Corporate Archives

Leaving the east switch at Field, an eastbound passenger train with two engines on the head end is already on the 2.2% grade. The absolute block signal will prevent any other train or locomotive from following this one until it is in the next block. The number on the signal mast, 136.2, indicates the mileage from Calgary.

By the look of the black smoke up at the head end, the firemen are sanding the tubes. When the engine was working hard, a small door on the rear wall of the firebox would be opened and sand would be scooped in, about a pailful at a time. This would be sucked through the flues, scouring the soot out of them and the engine would then steam more freely.

The open observation cars seen here were used in the mountains for many years. Very popular with passengers, they were much better than the present dome cars on Trains Nos. 1 and 2 because you could actually smell the smoke and eat the cinders from the head end engines! In addition, it was possible to take sharp photographs without the necessity of peering through scratched plastic windows. At first there was no closed-in portion on the cars but this was added at the same time as roofs. Prior to this, everyone would go back into the coaches before entering the tunnels. Some passengers in the picture have already staked out good positions on the car platform.

Since these cars were very old and only used on the tail end of trains, great care was taken while switching them. They had what the train crews called "glass drawbars", that is, bars which would pull out very easily during switching operations. Notice the coal oil marker lights on the tail end which had been taken off the car ahead when the "hayrack" was added to the consist.



L. A. Stuckey, Collection of W. H. N. Rossiter

T1a No. 5918, built by Montreal Locomotive Works in September 1929, nears the bottom of Field Hill after running down from Stephen. There is little steam or smoke except that coming off the wheels of the cars which by now are very hot despite a twenty minute stop at Yoho to cool them down a little. Smoking brakes are still to be seen on trains descending Field Hill but with the introduction of Cobra brake shoes, this phenomenon is becoming less apparent and is generally limited to older cars.

A 5900 engine could handle 2,850 tons or about 50 cars out of Calgary as far as Lake Louise but then a pusher was required to Stephen. Compare this to some of the trains today which haul 13,000 tons. The problem now is not how to get them up the hills since robot units make this possible, but rather how to get such a heavy train down safely.

There is a large object on the back of the tender which has defied identification. It was not uncommon during steam days to use the tender for transporting large or bulky articles between railway shops and this may be a piece of equipment destined for Field.

Behind the telegraph pole above the first car is the rock known as Hobo Rock, at the base of which is a natural shelter from the weather. Transients would wait here for eastbound trains since they usually slowed down a little at this point to allow the conductor to get on at the tail end in Field. If the hobos thought that the train might be going a bit too fast, they would put some bacon grease on the rails which caused considerable slipping and a slower speed.

John C. Illman

No. 8409 heads a short train two miles east of Field on July 1, 1952. This is a very sad picture because in the consist is No. 2702 probably leaving the mountains for the last time and I have to wonder what she was feeling. The main rods are up on the running board. All dead engines were handled in this way in order to avoid the danger of breaking rails in transit and the necessity of lubricating the cylinders. The train crew are not responsible for looking after motive power and normally a fireman or wiper would travel with a dead steam locomotive to make sure everything was properly greased and oiled. This was considered to be a great treat for a wiper because, when he reached the other end of the subdivision, he was deadheaded back home on a passenger train. I made several of these trips and you could sit in the engineer's seat and pretend you were a hoghead for a short time.

No. 8409 is very new, having just arrived in Calgary in the original road colours. She was C.P.'s first GM road switcher and also the first one into that city. After working freight for a short period, she was assigned to the Exshaw Switcher where she remained for a considerable time. The stock car behind the tank car normally hauled cattle west from Calgary to Vancouver. However, on the return trip generally it carried new railway ties which would be treated at the wood preserving plant in west Calgary. In this way the maximum use was made of cars and costs were, quite rightly, minimized.

C.P. Corporate Archives

This photograph taken shortly after the opening of the railroad through the Kicking Horse Pass shows a westbound train, the "Pacific Express", stopped on a wooden trestle on her way down the Hill. Judging from many other similar photographs, it seems to have been a common occurrence for trains to stop at scenic points so that passengers could stretch their legs and enjoy the view. The consist is typical of the early transcontinental trains, with a baggage/express/mail coach, two coaches which might be first class or colonist cars and a sleeper, in this case named "Calgary".

The trestle, straddling what is known as the Big Slide, was later filled in. Since the source of the slide is a glacier near the summit of Mount Stephen, by the time it reached this point huge amounts of snow, trees and rocks had been picked up which made clearing up operations very difficult. Notice the barrels on the trestle which were used to store water in case the timbers of the bridge caught fire.

At this time, the snowshed seen on the next page had not been built but the short tunnel in the shoulder of Mount Stephen can be seen. Recently the height of the roof has been increased to allow covered tri-level car carriers to pass through safely. The telegraph line down the hill is a far cry from that seen on the front cover yet it still managed to keep communications and traffic moving.

There is no road on the valley floor but later in the 1920's and 1950's the No. 1 Highway and the Trans Canada Highway respectively were built on the far side of the Kicking Horse River. The lower slopes of Mount Burgess (8,473') and Mount Field (8,665') can be seen across the river.

Lance Camp

This beautiful photograph, taken one mile west of Cathedral on April 1, 1978, shows No. 2860, a "Royal Hudson" H1e 4-6-4 built in 1940. This particular locomotive, operated by the B.C. government on the scenic run between Vancouver and Squamish, B.C. during the summer months, is a very popular tourist attraction, carrying almost 800 passengers daily at the height of the season. On this occasion the exhibition train had just started out on a 7,500 mile cross-Canada tour from Vancouver, celebrating the bi-centennial of Captain Cook's landing in British Columbia.

Apart from the decorations on the front of the engine, the coats of arms on the tender sides and the ditch lights on either side of the pilot, No. 2860 looks much as she did in the days when she and others of her class went up and down the Hill once a year or so, to and from their overhauls at Ogden Shops, Calgary, The rest of their lives were spent working on passenger trains between Revelstoke and Vancouver.

This train is made up of No. 2860, a 12 wheeled tender used for carrying extra water, an oil tank car, F7B's Nos. 4438 and 4459, a box baggage and 12 coaches bringing up the rear. Of course in steam days there would have been no need for the extra tender and tank car since fuel and water were more widely available. The B units were controlled from the cab of No. 2860 and her exhaust indicates that all three are working to capacity. Although looking clean now, after going through the Spiral Tunnels both the locomotive and her crew were black as she blasted off years of accumulated diesel soot from the roofs of the tunnels. It had been twenty-five years since the last steam engine had climbed the Hill and the sight of No. 2860 here brought back many memories.

Compare the track in this picture with that in the previous photograph, as both were taken at about the same location. The snowshed at the bottom right was knocked down by a bad rock and water slide a few years after this photograph was taken and has not been replaced. However, the slide fence seen ahead of the engine was extended to cover this territory. When a slide occurs and hits the fences, these activate the block signals on either side of the slide, warning oncoming traffic and the dispatcher in Calgary. A bell also rings in Field. Prior to its demolition, there was a bell located in the old watchman's shack which was down the track to the right of the photograph.

Nick Morant, C.P. Corporate Archives

This photograph was taken one mile west of Cathedral. The lack of steam and smoke indicates that the train has probably stopped so that the tail end pusher can pick up full cars of ore and set off empty ones at the Monarch Mine to the right of the picture.

The original claim was granted in 1893 shortly after the railroad was built. Men and materials were taken up to the mine openings on Mount Stephen in a large bucket. Production consisted of ore containing lead, zinc, silver and a minor amount of gold. A small concentrator was constructed near the tracks in 1912 and this was replaced by a larger mill in 1929. The ore was shipped to Trail for smelting until the mine closed in 1952.

In the early years the National Parks were not seen as incompatible with industry and several mining ventures were permitted to operate, such as the large Bankhead coal mine near Banff and the Monarch mine seen here. However, attitudes have gradually changed and today, even minor improvements of the railway alignment now require intensive scrutiny from Parks and railway officials as well as environmentalists.

One of the original options for building a line through the Pass would have involved cutting across the scree slope just below the mine entrance. Going through a tunnel, it would eventually have bypassed modern day Field, to meet up with the present grade well to the west of the town.

Above the locomotives can be seen the old No. 1 Highway which, near this point, diverged from the alignment of the original railway grade and, after crossing the tracks seen in this photograph, made a sharp switchback to get down to the valley floor.

C. Littlebury

Emerging from the short tunnel west of Cathedral, No. 5108, a P1a built by C.P.R. in 1912, heads a short train of eight cars. Included in the consist is a foreign looking baggage car, possibly Soo Line, on the head end and an open observation car on the tail. At this time No. 5108 does not have a water pump and a steam injector is being used to supply the boiler. Since the engine is a hand fired coal burner, the fireman is enjoying a well earned rest as the train slowly drifts down the Hill.

The tunnel presented quite a problem when the Trans Canada Highway was built. The road was located to the left of the tunnel and part of this shoulder of rock had to be blasted off but it had to be done in such a way that the charges would not be sufficient to disturb the roof and walls of the tunnel. Although Canadian Pacific was asked if it wanted the tunnel "daylighted", the Company decided against this step.

Immediately above the train can be seen the old grade which at this time was being used as the No. 1 Highway. The grade from a point just west of here to Wapta Lake averaged 4.5% which is much easier for automobiles to handle than trains. The upper and lower portals of the upper Spiral Tunnel can be seen in the top right of the photograph.

The telegraph lines to the left of the engine were of great importance because not only did they keep trains moving but were also part of the main communication lines across Canada. Companies using them included long distance telephone service, Canadian Dow Jones Financial News Service, Radio News Service and the Canadian Press. They were also the connecting link on the "All Red" route between Great Britain and Australia and New Zealand. Needless to say, they were kept in good repair and there was — and still is — a repeater station east of the site of Mount Stephen House in Field.

An unidentified 2-8-0 "Consolidation", one of the pusher engines built for service on Field Hill, stands on the Mount Stephen spur soon after the construction of the track.

This location has been identified as the third safety track built as a precaution against runaway trains. However, when I look at the reverse curve of the track it is obvious that any runaway train would be derailed rather than slowed down. If it was the safety spur, then it must have quickly been replaced by another with a more suitable alignment. Walking over this area one can find another track some little distance further up the hill which is a more likely candidate for the No. 3 safety switch. In addition, the remains of what appears to be a two stall engine house can be found at this higher location.

The remains of old No. 6 (see page 32), used in the building of the Spiral Tunnels, can be found on the spur in this photograph, about a hundred yards off the old main line grade. A number of stories grew up as to how the locomotive and her crew met their tragic end. One popular explanation was that she had been a road or pusher engine on the Hill but had run away, out of control, and been derailed at this point. Also, for a time it was felt that a flatcar carrying the engine to a new destination had derailed here but if this was correct, why would the locomotive have been abandoned after the clean-up operation? Furthermore, the position of the remains argues against this, due to the distance from the old main line. It would be nice if the engine could be rescued and mounted upright with some interpretive caption. As a result of vandalism, her condition has deteriorated noticeably and so the time to act is now.

Editor's Note: Just as this work was going to press, Doug Philiips, Engineering Assistant with the Operating Department of CP Rail in Calgary, located the right of way drawings for the three safety switches. The third safety switch was in fact, originally located at what is termed Yoho Spur in the map on page 2. In 1902, it was relocated up the Hill as is also shown in the map. No doubt this was done to remove the sharp curve into the switch at Yoho Spur as Floyd has surmised.

C.P. Corporate Archives

W. C. Whittaker

This photograph taken on July 3, 1947 shows three engines, No. 5812, a 2-10-2, and two unidentified P2 2-8-2's, moving up the grade at Cathedral, four miles east of Field. After being a stoker for many years, No. 5812 is now an oil burner and has the large tender that once belonged to No. 8000 as previously mentioned on page 8. Notice the difference in the smoke coming from the oil burning locomotive and the two which are coal fired. It will be a hot trip through the tunnels on the last locomotive!

Before entering the tunnels, the fireman usually set the oil or stoker valves. The engineer did the same with the throttle, then turned on the sanders and shut the doors and windows. Taking a large piece of clean cloth he would soak it with water, put it over his mouth and sit down on the floor until the engine was out of the tunnel. The lower you were, the cooler it was in the cab and there was no point in looking out the window because you couldn't see anything for the smoke and steam. On one trip on a passenger train I took along a home thermometer and on a three engine train like this the temperature read 110°F. However, I should add that this was as high as it read and so it could have been even hotter! Whatever it was, it was certainly plain hell in those holes in steam days.

Since there are no mail or express cars, this is probably Train No. 4. Sand can be seen pouring out onto the track ahead of the drivers on No. 5812 since the head end engine normally sanded for all the others. Due to the large amounts of sand needed — up to two cubic yards on a 5900, for example, every divisional point had a sandhouse. The sand would be screened, dried and put in a tower where it would be fed by gravity into the engine sand domes.

C. Littlebury

No. 596, a D9c built in 1903, heads Train No. 13, the "Mountaineer", on June 7, 1925. Emerging from the lower portal of the lower tunnel, she has dropped 50 feet inside Mount Ogden (8,805') on a great 2,922 foot curve. The mile board indicates that distance from Yoho, the next siding to the east.

This engine is still a coal or "hay burner" as we called them and there is a spare shovel up near the coal pile. The fireman is having an easy time going down the Hill since he only has to make enough steam to run the dynamo for lights and the single action air pump seen on the left. This worked almost continuously to supply the large amounts of air needed to recharge the brake system of the train.

The brakemen used the running boards above the driving wheels to get out on the pilot. In this way they could run ahead of the train, open the siding switches and the train would not have to stop. There were many places on the road where once stopped, a train could only continue in two sections causing quite a delay. This procedure was known as doubling. Engineers would also walk out on the running boards while the train was in motion so that they could oil the moving parts on the fly. If the engineer decided to do this when you weren't looking, the sight of an empty right-hand seat would give you the shock of your life!

The tunnel watchman's shack can be seen beside the top track. After walking through the tunnel every hour he would emerge from the lower portal and climb a short path behind No. 596 to his shack to get warm. It was a lonely job but when you went by, no matter what the hour day or night, they were always out by the track to signal that all was well in the tunnel, a very comfortable feeling for the engine crews.

The lower portal of the lower Spiral Tunnel has been the scene of many publicity photographs and this, like others, is a montage of two photographs.

In 1977, a photograph of PanCanadian Petroleum's tank cars was needed for their Annual Report and Nick Morant was asked to do the job. In September of that year, Nick shot the tank cars on an eastbound freight but there were no westbounds for the locomotive shot. So he had to return each day in the hope of taking this part of the picture in the same light conditions as the first so that both halves would match up. Several days went by and Nick still hadn't been successful. I was working on Trains No. 1 and 2 at the time and as I came up the Hill one morning, I observed Nick jumping up and down on his hat, his hand pointing to the sky, to indicate to me that yet another day was lost due to improper light. It took a week to get the second shot and after developing, the prints were montaged along the track on which the tank cars are running. Since the cars carried no company name, an artist added the oil company stripes, painted out the cars' numbers and then touched up the join. This just goes to show that you shouldn't believe everything you see in a photograph!

As Nick was C.P.'s official photographer, when I was working on the passenger trains I would often see him at various places in the mountains taking pictures. His favourite location, a hill overlooking a bend in the track between Lake Louise and Eldon, is known as Morant's Curve. One day when Nick arrived here, he found another photographer who proceeded to tell him about this piece of track and how it got its name. Nick is a very modest individual and after listening to the explanation, indicated that he was not aware that his name was being used in this fashion.

The following story also comes from Nick Morant. At one time a signal maintainer at Field called Hughie Reed had a dog that he took with him when patrolling the signal system on the Hill on his speeder or track motor. The dog did not like to go through the tunnels and would jump off, run up the path above the number boards of No. 5743 and meet Hughie when he came out, repeating the manoeuvre at the upper tunnel. These paths are the same ones used by brakeman mentioned on page 36, and one wonders if the dog watched them and got the idea.

Nick Morant, C.P. Corporate Archives

Nick Morant, C.P. Corporate Archives

This picture of an eastbound freight working up the Hill and through the lower Spiral Tunnel shows the difference in height between the units and the caboose which is about fifty feet. In order for the train to cross like this, at least 90 cars would be needed in the consist. Only one of the three Geeps can be identified, No. 8623. Between 1954 and 1959, 200 were built with 1,750 horsepower, and of the 194 remaining in service today, all are being rebuilt as yard switchers.

The tail end brakeman or conductor is just about to close the back door of the caboose because the heat and fumes from the four or five units up ahead will be pretty grim back there. The Spiral Tunnels have no exhaust fans and the smoke and fumes are mainly cleared by trains going down the grade

This old wooden caboose has the stem-winder hand brake on the end as well as the coal-oil marker lamps. On the roof, ahead of the chimney, is the conductor's individual marker which would help him locate his caboose amongst many on the caboose track in the yard. Each marker was different, ranging from an old broom to a plow share, even a toilet! — whatever suited the conductor's fancy.

The small sign beside the eighth box car is to remind the snow plow operator that there is a bridge coming up. He must lift the blades that are between the track because there are two sets of rails, one being a set of guard rails, on bridges.

There is an amusing story told about one of the patrolmen whose job was to go through the tunnels, watching for rockfalls. He called in on the tunnel phone, in a great state, saying that there were ghosts playing a piano in there and no way would he finish his patrol! Naturally, this had to be investigated and it appeared than an operator had been transferred from Yoho down the Hill to Cathedral, less than two miles by rail. All his effects had been moved to the new location except his small piano and with the help of the sectionmen, he loaded the instrument onto a small push car. His intention was to coast down through the lower tunnel to Cathedral, and he thought it would be fun to go down in history as the only man who ever played a piano in Spiral Tunnel. However, he didn't consider the effect it would have on the poor unfortunate man on patrol!

W. C. Whittaker

Hauling a section of Train No. 8 in July 1947, a 2-8-2 locomotive has just emerged from the upper portal of the lower Spiral Tunnel between Cathedral and Yoho, a distance of 2.6 miles.

During the summer, when Trains No. 4 and 8 had particularly heavy consists, the trains were run in sections. The first freight crew out of Field after the arrival of these two trains would be assigned to haul a section. In this picture the two refrigerator cars next to the engine probably contained fruit from the Okanagan Valley. They are followed by two baggage cars and an old wooden caboose, which has a small white patch on the side where the soot has been cleaned off so that the number can be read.

Since both the engine and the train crews of the freight were used, the conductor took his caboose with him. Some cabooses belonging to conductors and brakeman were beautifully fitted out inside with many non-standard items such as rugs, curtains and even built-in cupboards. Their owners spent a lot of time on the cabooses when they were at their away from home terminal. Heaven help the yard or road hoghead who made a rough joint when switching a caboose because the conductor would let him know in no uncertain terms! Alas, the cabooses are now pooled and conductors no longer have exclusive use of their personal cars. Worse, if the railways have their way, the caboose will be replaced by an electronic "black box" and like the steam engine, become just another obsolete item mentioned in the pages of railway history.

Note the brakeman who is sweeping the cinders off the roof of the caboose where they have accumulated in a thick layer during the trip through the tunnel. The brakeman and the conductor are also watching the photographer in case he signals that something is wrong such as a hot box — thumb and first finger to the nose.

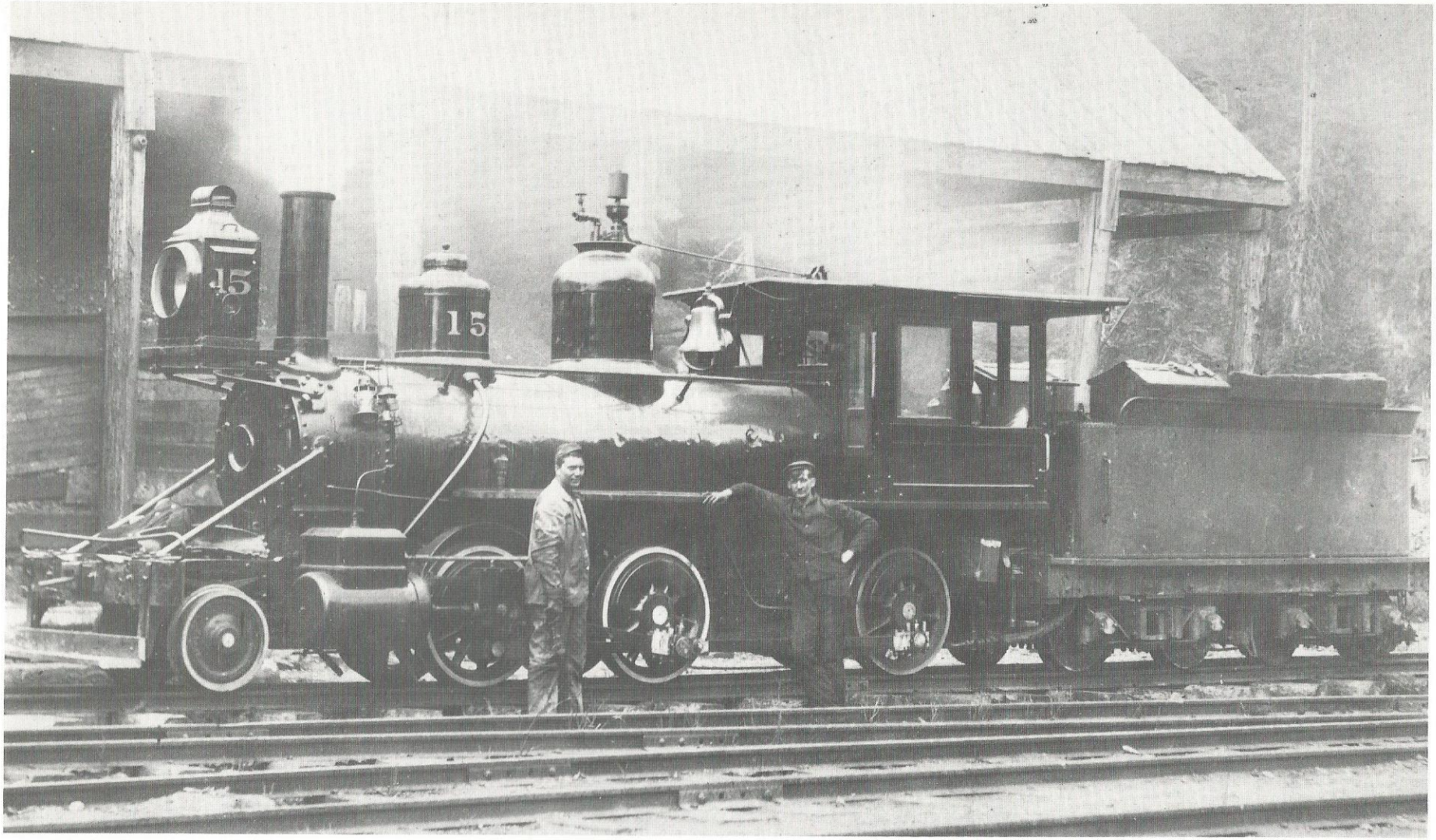
The can hanging from the back of the caboose carried coal-oil which would be used for the lamps and to light the fire in the stove. When the caboose was serviced at Alyth in Calgary, the supplyman would refill it.

Michael P. Woodhead

Train No. 8, the "Dominion", headed by No. 4034, an FP7A built in October 1950, is working up the Hill at Yoho siding between the upper and lower Spiral Tunnels. Notice the heavyweight sleepers which are running behind the more modern day coaches. This photograph was taken sometime prior to April 1952, when the "Dominion" was still the premier train, a status it would retain until the introduction of the "Canadian" in the mid-1950's.

On the right the old No. 1 Highway down Field Hill crosses the railroad. At this point it was using the old 4.5% railway grade which was twice as steep as the grade on the track here. The crossing protection signals, operated by batteries in the cement tank below, sometimes ran for up to an hour. While making a meet here, eastbound and westbound trains could not cut this crossing to allow automobiles through because of the danger of the train running away. Consequently, cars would sometimes be backed up for a ¼ mile in the summertime with angry owners shaking fists and honking horns. As engine and train crews we would shut the windows and doors and ignore them, as it was much easier than repeating the explanation to each driver.

The small box on the mast enables the signal maintainer to activate the signals manually and thus ensure that they are in working order.



Collection of Roy Molyneau

This photograph shows the shop at Yoho which serviced the narrow gauge engines that were used during the construction of the Spiral Tunnels. On the left is engineer W. J. (Harry) Molyneau of Calgary whose son Roy, himself a retired C.P. conductor, kindly located the photograph.

At least two narrow gauge steam locomotives were used by MacDonnell and Gzowski, the contractor responsible for building the tunnels. Prior to this, both engines had been in service on a 370 mile network of 3′0″ gauge railways that connected Dunmore Junction on the C.P.R. main line east of Medicine Hat, Lethbridge, Cardston and Great Falls. This system operated under a variety of names, principally the North Western Coal and Navigation Company and the Alberta Railway and Coal Company. The Canadian section of track was leased by the C.P.R. in 1893 and subsequently converted to standard gauge.

Due to the conversion, some locomotives became surplus and were progressively disposed of to other narrow gauge carriers in B.C., the Yukon, Alaska and the northwestern United States. North Western Coal and Navigation No. 6 was one of at least two sold to the tunnel building contractors and was transferred to Field Hill in 1907. A 2-6-0 Baldwin built in 1885, she now lies on her side, partly stripped, a short walk from the Trans Canada Highway above the west end of Cathedral siding. Her identity has been confirmed from the serial number 7717 on the builder's plate that was mounted on her smoke box and which has since been removed.

However, the identity of the locomotive in this photograph is not so certain nor is her ultimate fate. If she is No. 15 of the Alberta Railway and Coal Company, then she was built in 1890 by the Canadian Locomotive Company. It is likely that when the Spiral Tunnels opened for traffic in September 1909, No. 15 was hauled elsewhere, possibly for logging service.

Floyd Yeats

S2a No. 5810, with green flags signifying that there is at least one more section to follow, and T1b No. 5925, on First No. 8, are standing at Yoho in July 1946. I am firing and engineer Seth Partridge is going to talk to the pusher hoghead and suggest that he come down with us, instead of cutting off at Stephen and running down light to Lake Louise. The pusher would be going down to the Lake anyway to push a few westbound freights to Stephen and this way he will save about ten minutes since he can cut off while we take on water there. It will also be easier for the dispatcher as he won't have to issue another set of pusher train orders.

The order board on the station is at "stop" because we have to wait for three light pushers to come down the Hill from Stephen. Pushers coming down in the afternoons took preference because as many as ten pushers were needed in less than four hours and some crews worked on two different eastbound trains. Thus if you did not get pushers down in time, passenger trains going up were delayed considerably. It was pretty hectic for about four hours and there weren't too many freights moving during that period.

Engines did not take on water very often at Yoho although there was a water tank as seen. This was a standard 20,000 gallon enclosed type built in 1913 to replace a temporary structure built in 1909. The train crews used to like taking on water for their cabooses here because springs produced ice cold water all year round.

Partridge siding was named after Seth Partridge. Sometime in 1925, in the middle of the night while firing an engine in the siding, he heard a big rock slide coming down off Mount Cathedral. Without any hesitation he ran down to warn the section crews at Yoho and Cathedral. Some of the rocks in the slide weighed several tons and in recognition of his unselfish act, the Company changed the name of the siding from Mars to Partridge. In addition to this, Seth was awarded $1,000, a great deal of money in those days, by Liberty Magazine for an Act of Bravery.

Jan Booth

It is late afternoon on October 10, 1982 as Train No. 2, the "Canadian", headed by No. 1403, together with a B unit and another FP7A, passes the old station at Yoho. The consist is a real mixed bag of ex-C.P. and C.N. cars in stainless steel and blue. Despite the common use of blue and yellow and the VIA logo, it is still rather a mess!

No. 1403, built in 1953, was sold to VIA in 1978 and repainted in blue and yellow on September 25th the following year. One of seventeen units sold back to C.P. by VIA for parts, she was reported to be at St. Luc yard, Montreal in July 1984.

The original station here was a standard C.P.R. section house costing $900 in 1909 but this was retired in August 1925 after a rock slide (referred to on page 33) and became the Agent's dwelling. A train order station with only an operator's office was built instead at a cost of $350. Notice the rather drunken lean to the chimney. Shortly after this picture was taken, the station was torn down and replaced by the prefabricated trailer, seen on the right.

With the introduction of Centralized Traffic Control (C.T.C.) in the late 1960's, Yoho lost its status as a siding and was relegated to storing equipment used by work gangs on the Hill. In fact this photograph is unusual in that there is no equipment here because there is always maintenance going on.

On one occasion in the 1940's, we had to leave a "dead" 5900 in the siding here because of a defective brake hose. Most people are not aware that steam locomotives did not have hand brakes and we had to use all kinds of blocks and chains to prevent her from running away.

Heading an eastbound freight train, No. 5352, a P2d constructed in April 1924 and No. 5443 a P2j built in July 1944, are about to enter the lower portal of the upper Spiral Tunnel, east of Yoho. Both engines are coal burning stokers and have obviously used nearly half of their sixteen ton coal supply. Once she got to the top of the Hill, a road engine could reach Calgary on the remaining fuel since it is mainly downhill, dropping close to 1,900 feet in 122 miles from Stephen (5,332′) to the city (3,438′). In contrast, a train leaving Qu'Appelle, Saskatchewan (2,144′) would have to run 1,731 miles to Montreal (109′) to drop the same amount, which just goes to show how difficult mountain railroading can be.

The shack above the lead engine is where the tunnel watchman lived with his family and it was definitely not the best place to hang out a white wash! Watchman walked both tunnels 24 hours a day, 365 days a year, looking for fire in the timbers, a collapsed roof or track trouble and as a result, there were few problems and an excellent safety record. On the portals of the upper tunnel were great doors which were attended by the watchmen. These doors were probably only used in winter to minimize icing conditions in the interior. There is a story that a sectionman found a moose in one of the tunnels and was in the act of leading it out when a train came through. He held the animal by the ear against the side of the wall as the train passed and later led it to safety.

To the right of the picture and down the hill can be seen the Monarch Mine buildings and part of the track one mile east of Cathedral. Below the pile of ties runs the old No. 1 Highway which followed the original railway grade.

Collection of Harvey W. Elson

Soole Collection, National Railway Museum

Train No. 7, the "Dominion", headed by G3b No. 2709, is about to enter the upper portal of the upper Spiral Tunnel, one mile east of Yoho by rail but only a few hundred feet as the crow flies.

No. 2709 is a 4-6-2 "Pacific" built in 1920 and these engines were in service on the Hill for about ten years between their replacement of the D9 4-6-0's and the arrival of the 5900 "Selkirks". All the ten wheelers, regardless of formal classification, were known to the operating men in the west as D10's. While well liked by the engine crews because they were very free steamers, their 70 inch drivers were a little large for mountain railroading. As a result, a pusher would be needed from Lake Louise to Stephen if there were more than ten cars in the consist, whereas a 5900 could handle sixteen cars without help.

When a freight train going downhill had to take the siding at Yoho, the brakeman would jump off the engine at a point near the end of this train, head down a path for a couple of hundred yards and open the switch for the siding. This was a great help as the train was hard to hold downgrade in steam days. On a trip up the hill, the head-end brakeman used this same path to walk up and meet the train after it came out of the upper tunnel, thereby missing all the smoke, steam and heat. Since the train would not be going very fast, it was quite easy to do this and much more pleasant than going through the tunnel.

Notice the "tell-tales" hanging above the front of No. 2709 and at the lower entrance to this tunnel. They served as a warning to brakemen to get down between the cars before going into the tunnel because there was not much room between the roofs of the cars and that of the tunnel.

Nick Morant, C.P. Corporate Archives

Fairbanks Morse C-Liner No. 4078 together with three GP9's has just emerged from the upper portal of the upper tunnel and is passing the remains of Partridge siding. Limited to handling only 43 cars, the siding could not be used by the long trains being hauled by diesel power and so at this time it had been torn up. Later when C.T.C. was installed on the 137 mile Laggan Subdivision in the late 1960's, the siding was re-established and lengthened to handle 106 cars. Since the distance between Yoho and Cathedral was too short for proper C.T.C. signal intervals, Yoho lost its standing as a siding and is now used only for storing work gang equipment.

The Fairbanks units had a lot of trouble in the mountains, because, at the high altitude, they were unable to get sufficient air to burn the fuel properly and we called them "old smokies". In addition, the opposed piston engine developed a lot of water leaks in the engine seals and you had to get out the "garden hose" and give them a drink fairly often at places such as Exshaw, Banff and Lake Louise. On the positive side, as far as tractive effort was concerned, the Fairbanks were the most powerful of the early diesels used on the Hill and they would never quit. On one occasion coming up into Stephen from the Lake, we had four of them on the train when we were stopped because of a broken knuckle. After the train crew had replaced the knuckle we decided to try and lift the train, something we would never have considered doing with General Motors units due to slippage problems. However, the Fairbanks units laid into the train and, after a couple of slips, pulled the train up into Stephen, much to the surprise of everyone.

Archives of the Canadian Rockies, Banff

The decision favouring a shorter, easier to construct, route down the Hill instead of the original line down the west side of the Kicking Horse Pass, committed the C.P.R. to many years of operating problems. One of these was the necessity of using a large number of locomotives to get trains up the Hill but a more serious difficulty was the safe descent of the steep grade. Ultimately, the solution to both problems would be the building of a more satisfactory line and the introduction of better braking systems. However, initially, the Railway had to get by with short trains, strict operating procedures and the construction of three safety switches, so that runaways could be brought under control. These tracks were located just above the bridge over the Kicking Horse River, a short distance east of the site now known as Yoho, and above the present Cathedral siding.

It has been difficult to find many photographs of these safety tracks and certainly none seem to exist with a westbound train in view. This particular shot of the No. 1 safety switch was taken around 1895. Operating procedures for westbound trains were rigid and strictly adhered to, as illustrated by the following extracts from the 1909 employees timetable:

"One long whistle must be sounded at the whistle board located about one thousand feet East of each safety switch and provided the train is fully under control and not exceeding the prescribed speed, four short blasts must be sounded at the sign board showing switch number, as a signal for the switch to be thrown for the main line."

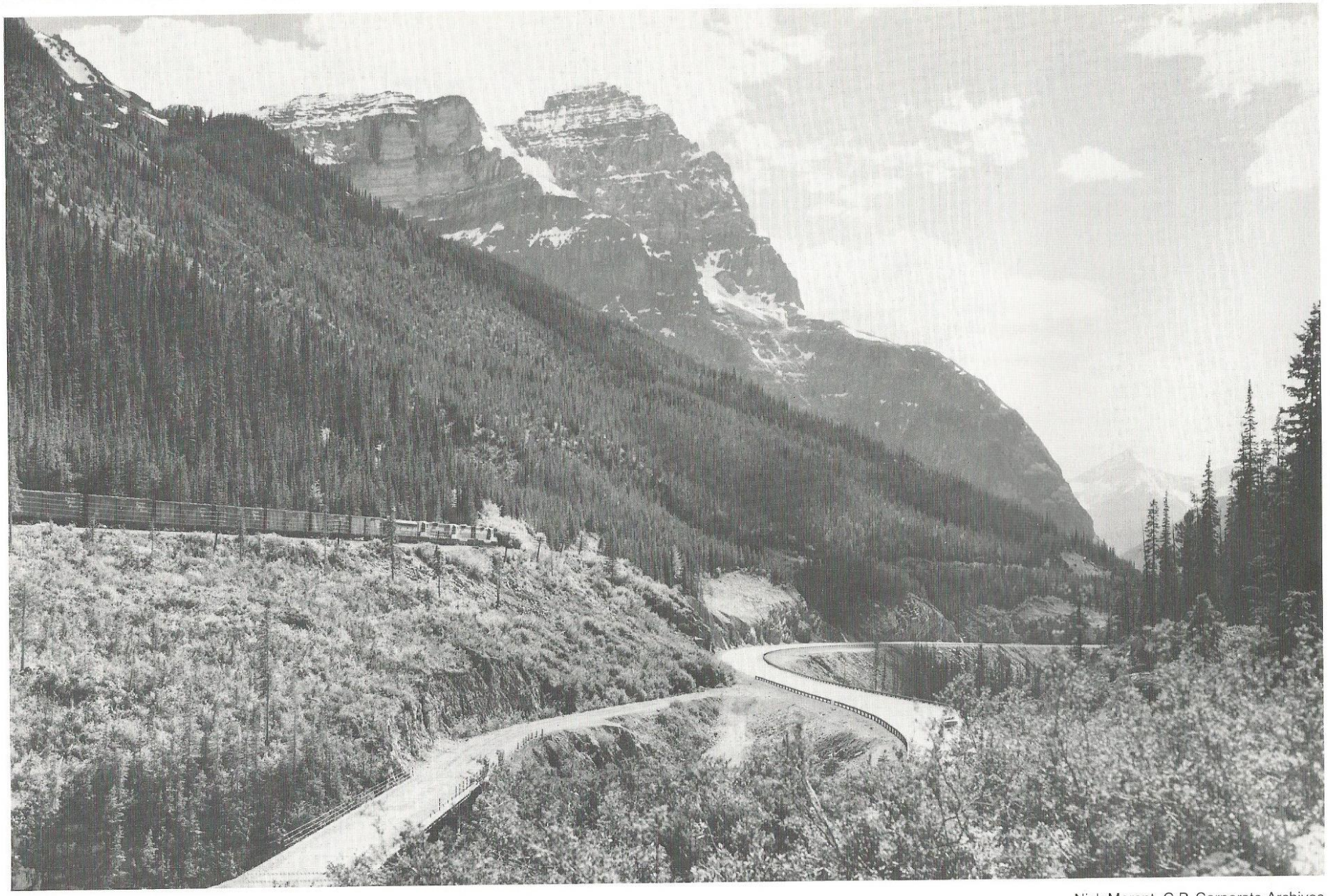
"The normal position of a safety switch is for the spur, and an engineer must not whistle for a switch to be set for the main line, unless the speed of his train is within the required limit . . . [of eight miles per hour for passenger trains, six for freight] . . . and he is satisfied he can maintain it so. Engineers must promptly report any case of a switch being turned for the main line before they signalled for it."

"It is the special duty of every switch tender to closely observe the speed of an approaching train, and unless he is certain it conforms to the regulation . . . HE MUST NOT SET SWITCH FOR MAIN LINE, thus requiring the train to take safety spur or stop before reaching it."

"If a train is seen to be running faster, for any cause, than its prescribed speed, the electric gong must be sounded by pressing the button in watch shack, which will be a signal to all switchmen and also the operator at Field that a train is running too fast. Switchmen receiving such a signal will immediately station themselves at switch and carry out instructions contained in these instructions."

As a footnote in the manual, enginemen, trainmen, operators and switch tenders were reminded to "Obey the rules, be watchful, run no risks".

With the opening of the Spiral Tunnels on September 1, 1909, the safety switches became redundant although it is still possible to find the sites of Nos. 1 and 3. As far as I can tell, No. 2 was obliterated when the highway was widened in the early 1960's.



Nick Morant, C.P. Corporate Archives

Three GP9's with a B unit head a westbound grain train going down the grade about one mile east of Partridge siding. The consist, weighing close to 5,000 tons, has been hauled from Calgary without assistance and the units are now in full dynamic brake with brakes also being applied on all the train since leaving the top of the Hill at Stephen. Pretty soon the train will be enveloped in blue smoke as the brake shoes heat up, making breathing in the caboose rather unpleasant. It is a curious fact that in steam days the engine crews suffered most from the smoke going up the Hill but when the diesels arrived, it was the tail end crews that got the worst of it, going down the Hill. Quite a change in a few years.

This picture is particularly interesting in that it shows both the original and the present railroad grades as well as the old No. 1 Highway and the present Trans Canada Highway. The bridge seen in the bottom left corner was originally wooden but this was later replaced by a steel one. When the old No. 1 Highway was built, a deck was added and it served as a highway bridge for many years until the present Trans Canada Highway was constructed. Still in good repair today, it is a great place for train watchers to park and enjoy their hobby.

The photographer is standing on — or very close to — the old No. 1 safety switch. On occasion extensive snow slides come down the slopes of Mount Stephen and block the track, as mentioned on page 22. The mixture of snow, ice and rocks made hard going for the rotary and wedge snow plows.

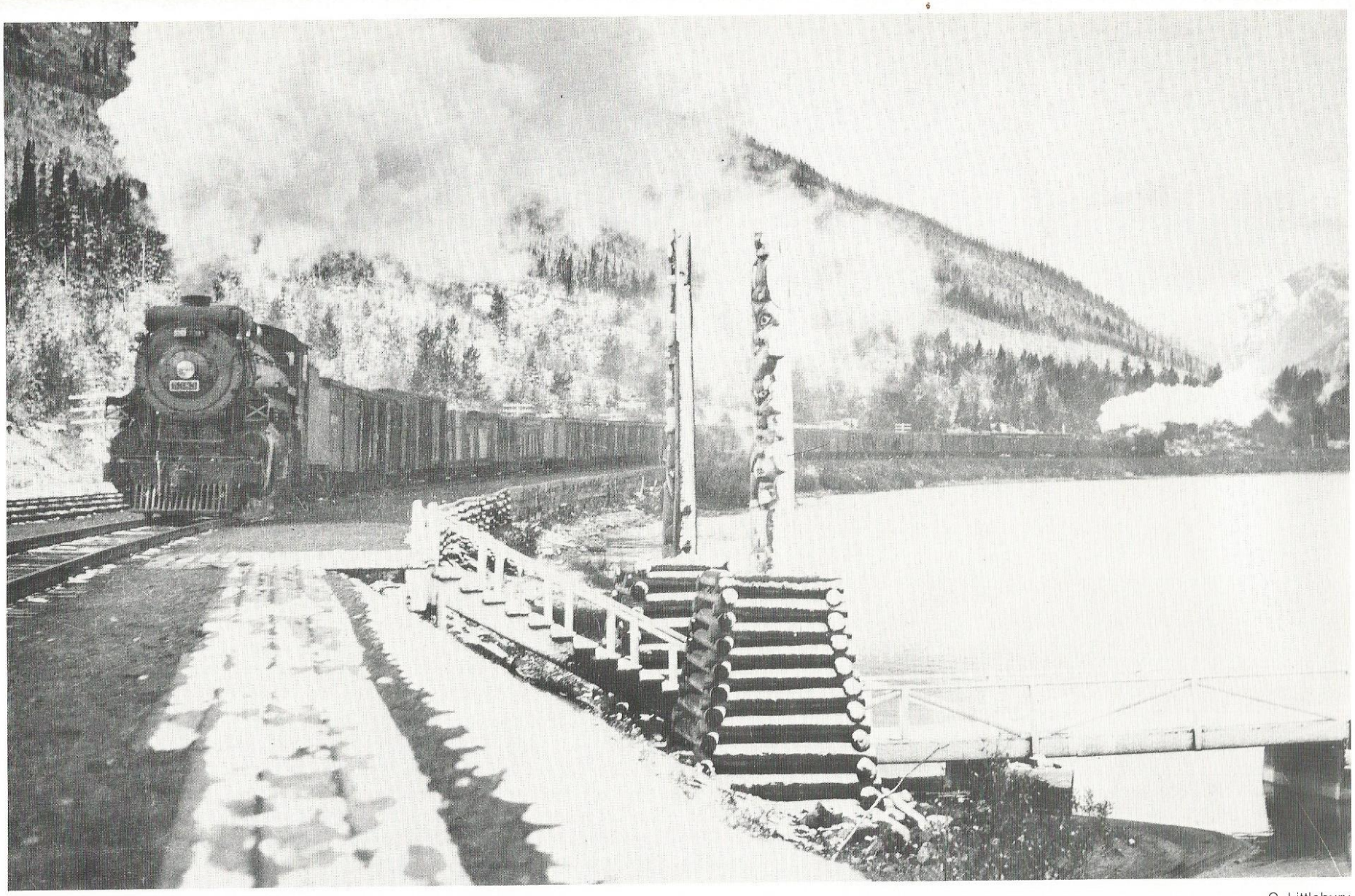
Nick Morant, C.P. Corporate Archives

Another great picture taken by official C.P. photographer, Nick Morant of Banff who has taken so many shots in the mountains around Field. When you come across a really interesting picture in a railroad book about the Canadian Rockies, you can be pretty sure that it is Nick's handiwork. No detail is too much trouble to make the picture special as in this case, where his wife Willie standing beside their 1936 Ford adds a nice touch.

An eastbound T1a No. 5904 is close to Lake Wapta where the grade levels off before the final climb to the summit. The consist appears to be empty grain cars, some carrying lumber to make good use of the equipment. Although a light train, there is probably a pusher on the tail end instead of having both engines at the front. In this way the last cars are kept bunched, reducing the chances of pulling a knuckle or drawbar.

The old No. 1 Highway to the right is an oiled road, like most of the park roads in the 1930's. After the Trans Canada Highway was built in the 1950's in this same place, during a bad storm the Parks Dept. snowplows would push the snow down onto the railroad which would promptly plow it back onto the road. Eventually in the 1960's the Parks Dept. gave up and solved the problem by paying for the construction of a new short section of track across the creek on the left. Another victory for the C.P.R., but then who was here first?

When the highway was widened in the 1950's, masses of glacial ice were uncovered in the hillside on the right. Archæologists conducted an excavation to look for signs of early man but as far as I know nothing was found.

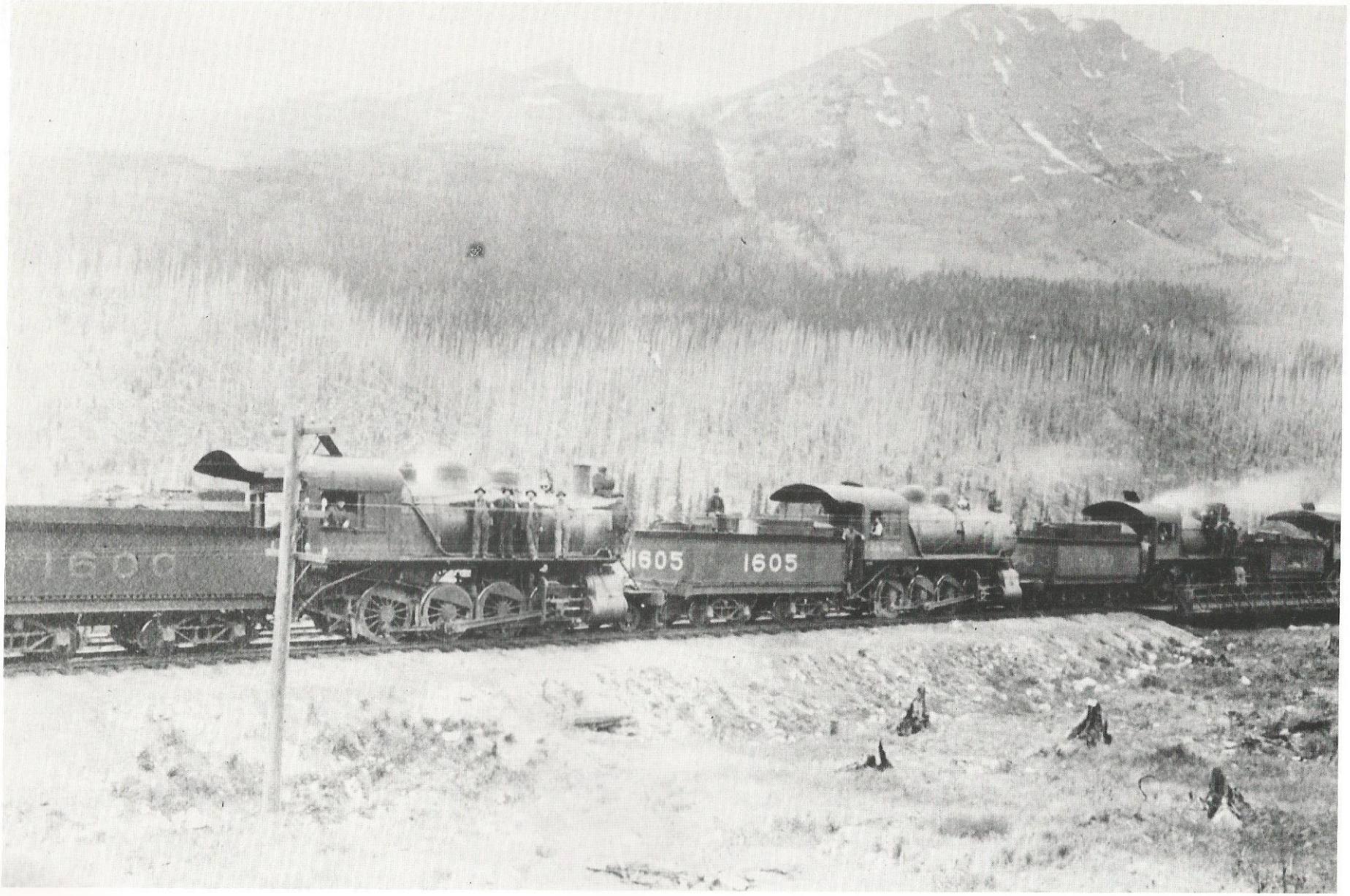


C. Littlebury

This eastbound freight train, headed by No. 5383, a 2-8-2, and with a pusher on the tail end, was photographed in the early 1930's at Hector, B.C. alongside Wapta Lake. The pusher engine is right behind the caboose which follows what appears to be two pieces of passenger equipment. By the time I started with the Company, this type of arrangement had been discontinued because of the danger involved. If the head end engineer had to go into emergency or a broken rail suddenly appeared, the pusher would plough straight through three or four cars before she came to a stop. I know of one occasion when No. 5810 did just that at Yoho, going through seven empty grain cars. Luckily the caboose was behind the pusher engine. Hearing a big 2-10-2 pushing only three feet from their back door and knowing that at any moment she might come through, was certainly not the most comforting feeling in the world for the conductor and tail end brakeman!

The original Hector station was probably a combination station/section house, built soon after the railway was opened, but this was replaced in 1947. Notice the totem poles and fencing on the platform where passengers disembarked for Lake Wapta Lodge, another of C.P.R.'s lovely mountain resorts. Guests were taken across the lake in a small launch which held about twenty people and had a colourful canvas roof. Most trains came through during daylight hours but old Train No. 1 arrived about 3:15 a.m. If there were any passengers for the Lodge, the engineer would give one long whistle, lights would flash at the Lodge across the lake and pretty soon the launch would be on its way.

Before building the Spiral Tunnels, Canadian Pacific conducted a preliminary survey for a long tunnel running from east of Lake Louise to just below the present Cathedral siding. During the course of this work it was discovered that Lake Wapta was at least 600 feet deep in places. This proved to be one of the factors against developing the project since the bottom of the lake was below the proposed elevation of the tunnel.



Glenbow Archives

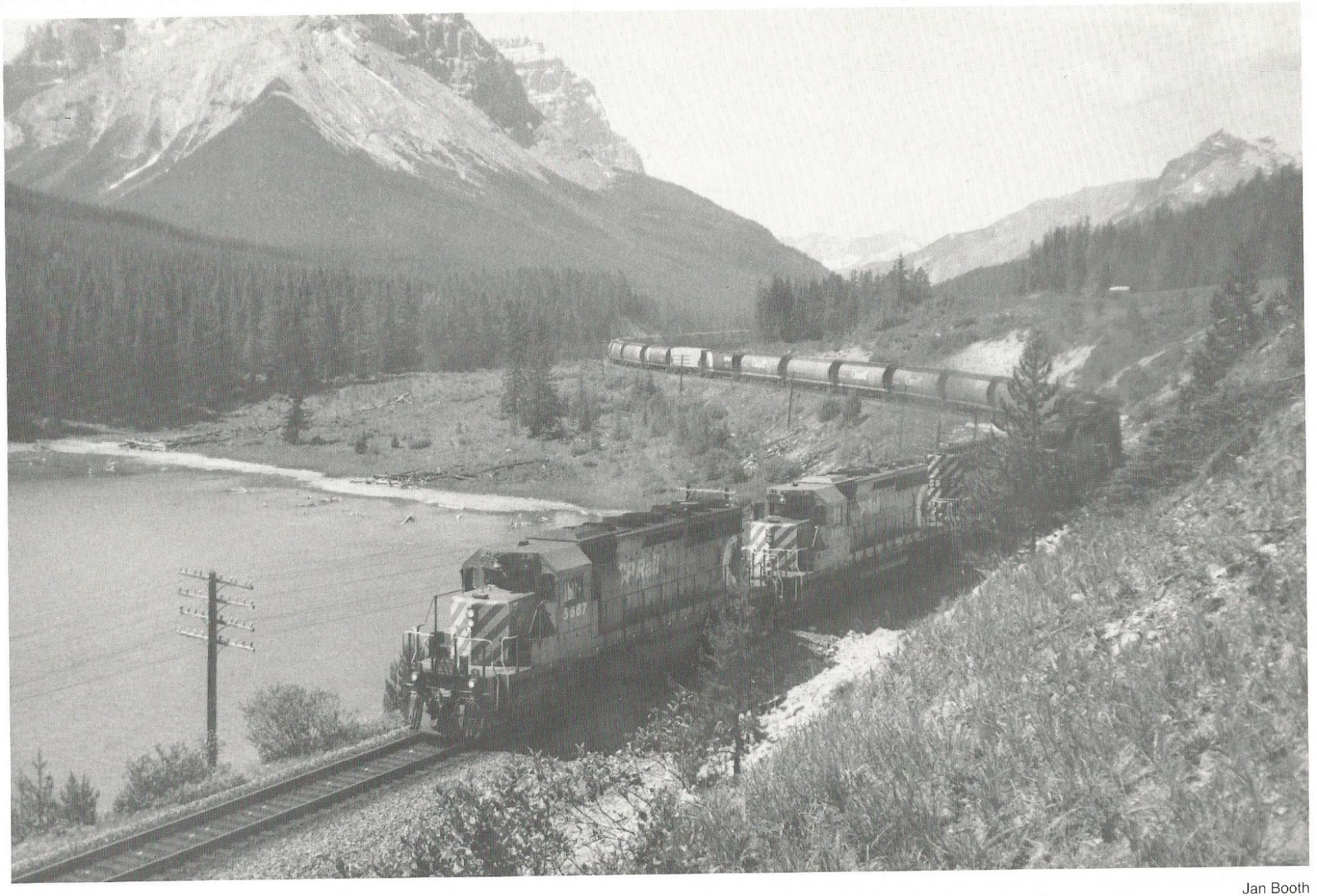
Nos. 1600 and 1605 with two other pushers wait to use the wye at Hector, after helping eastbound trains up the old grade from Field to this point. Built in 1904 by Montreal Locomotive Works, these 2-8-0's, with their 21″ × 28″ cylinders and 57″ drivers, were used in pusher service on the Hill for many years.

Returning to Field in pairs on freight or passenger trains, they will assist in braking, by putting the engine in reverse and working steam, similar in effect to the dynamic brake used on modern diesels. On the heavy 4.5% grade, hand brakes were used on all the cars. The brakemen on the engines were just some of the many who did nothing except take trains up and down the Hill. Because there was always the possibility of a train running away, these men rode on top or between the cars and used brake clubs to wind down or release the old stemwinder brakes seen on top of the stock car on page 20.

Hector had an operator, a water tank fed by gravity from Cataract Creek and a wye for turning engines. Because the Hill levelled off here fewer pushers were required to work to the summit at Stephen and so some were cut off on the fly at this point.

The very high grade anthracite used by these and other engines came from the Company mine at Bankhead east of Banff. It produced a very hot fire but gave off considerable quantities of cinders which can still be found over a foot thick in many places on the Hill.

Behind the locomotives a large area of trees has been destroyed by a forest fire. Such fires were one of the hazards affecting the railway's operations in the early years. For example, in July 1886, less than a month after regular service started, a fire razed the section house, water tank and the bridge at Hector as well as the bridge at the west end of Wapta Lake and five miles of telegraph line. The railway was reopened within 24 hours.



Jan Booth

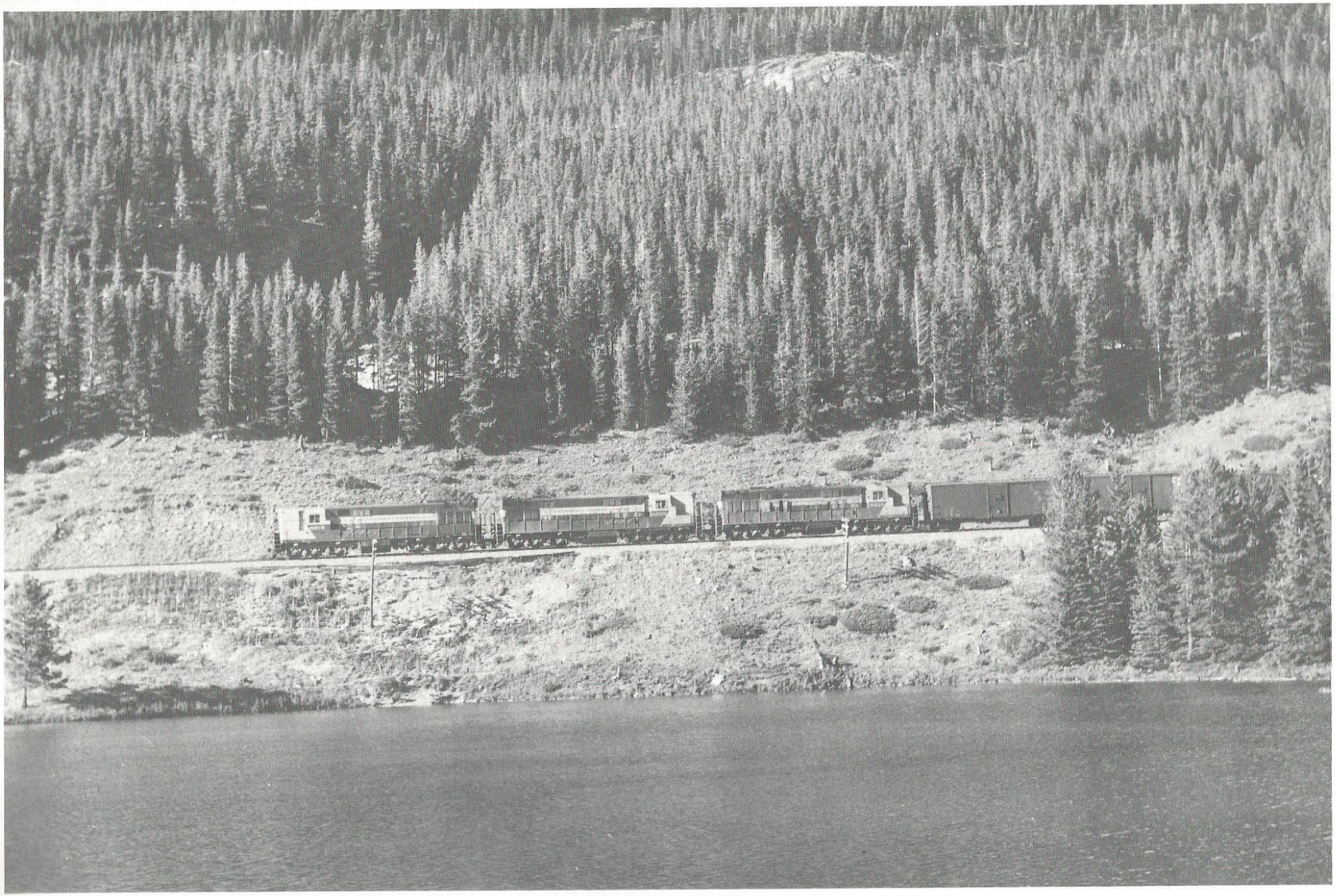
A freight headed by six SD40-2's, Nos. 5667, 5662, 5982, 5952, 5974 and 5759, hauls empty grain cars along the edge of Sink Lake on July 22, 1984. A short time later this freight met Train No. 1 and a westbound freight at the end of the new grade at Stephen, as seen on page 47.

Grain cars or "Trudeau hoppers" as they are often called, have become quite colourful in recent years. No longer just dark yellow, they can be seen in bright blue denoting Heritage cars from Alberta, red and brown for those built by the Saskatchewan government, as well as vivid red with a large "Canada" on the side for the new Government of Canada cars.

Sink Lake, unusual in that it has no visible outlet, was formed at the end of the last Ice Age. The soft surface deposits were probably depressed by a remnant of ice and it is likely that the water percolates through the glacial debris on the lake floor, to emerge further down the valley towards Wapta Lake.

The rather bare area by the lake in the centre of the picture was caused by a large slide in the early 1970's which crashed down the mountain slope out of view to the right, demolishing the trees that were growing here. It is worth mentioning that it took 36 hours to clear the highway of debris but only eight hours for railroad traffic to resume, an excellent example of how well C.P. handles this kind of situation.

In the background is Cathedral Mountain, with Mount Stephen just visible to its right.

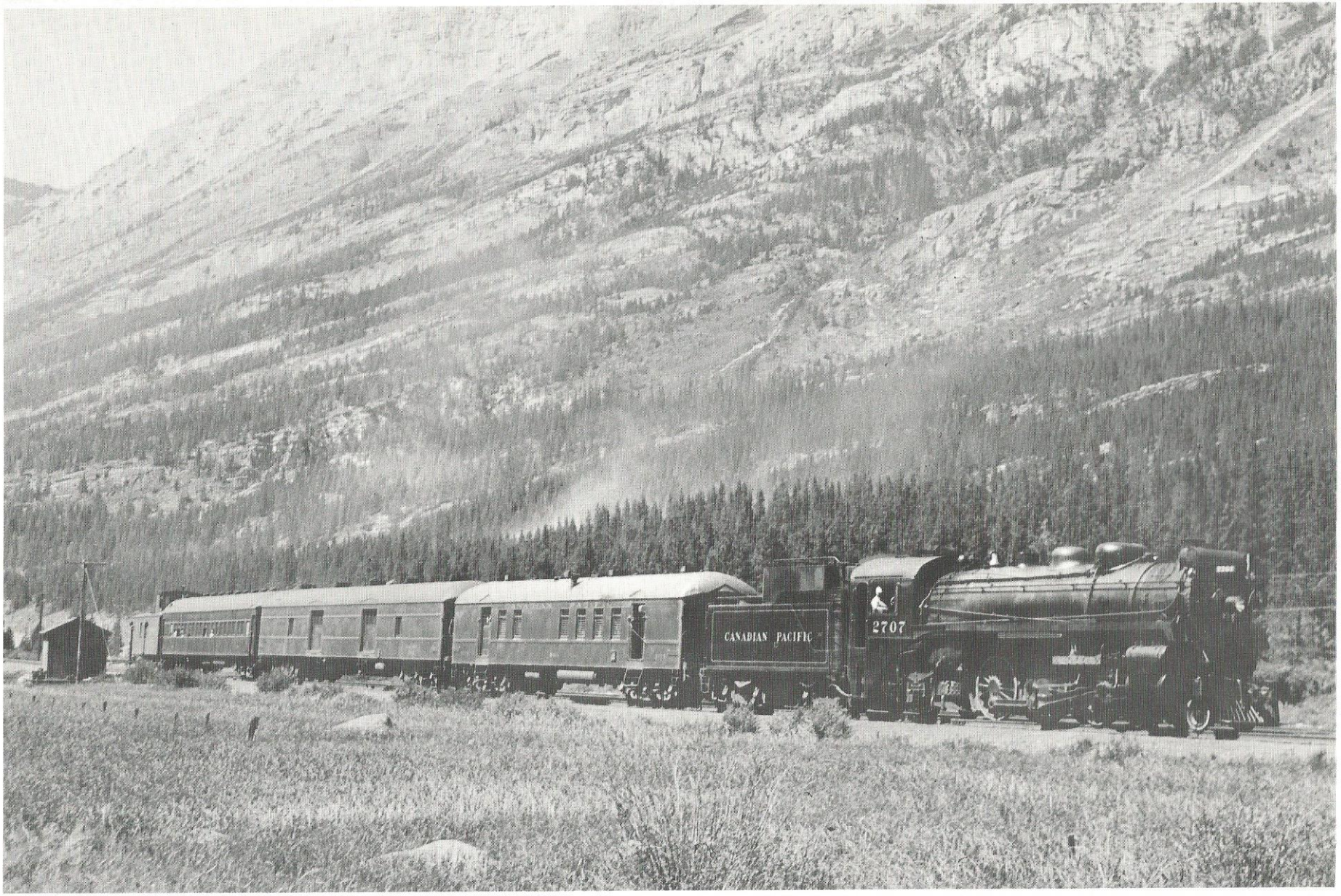


Peter Cox

Three Fairbanks Morse Trainmasters, Nos. 8916, 8920 and 8910, run westbound along the shore of Sink Lake after leaving the top of the Big Hill at Stephen where a stop would have been made for the brakes to be applied and released. When a signal had been given by the train crew in the caboose that the brakes were working properly, the train would continue on its way. Having worked on the Hill and read all the special instructions in the timetable, it is easy to appreciate the great effort that Canadian Pacific has made to make train handling in this section as safe as possible.

Originally, the Trainmasters operated with the long hood forward but due to poor visibility they were later converted, at a cost of about $18,000 each, to run with the short hood forward. These three units, built in late 1956, were scrapped in late 1968 and early 1969. For further details see Canadian Pacific in the Rockies, Volume 3, page 19.

Trainmasters coming up the Hill made quite an impressive sight and of all the diesels, their sound came the closest to that of steam power. However, the transition in the power supply to the traction motors was very severe in these locomotives. On one trip three of them made transition at the same time in the lower tunnel which resulted in a drawbar being pulled out of the first car behind the units. This goes to show just how powerful they really were. Like the other Fairbanks Morse units they had water problems. Once, when asked by a Master Mechanic how the engines were making out west of Calgary, I replied that they would be great if there was a water car in behind them and a hose connecting the water expansion tanks. Unfortunately he didn't see the humour in this. Shortly after, when General Motors SD40's began to arrive, the Trainmasters were removed from service west of Calgary.



Soole Collection, National Railway Museum

This is one of my favourite pictures in the book. No. 2707, a G4a 4-6-2 "Pacific" built in 1920, arrives at Stephen with a section of Train No. 8, the "Dominion", consisting of three cars and a caboose. The rest of the train, with about sixteen cars and three engines, will be coming up the Hill amidst smoke, dirt and heat. The consist would have been broken into two sections at Revelstoke and will probably be put back together at Calgary before continuing its journey east.

The head end is about ¼ mile west of Stephen station and the caboose is just passing over the east switch of the wye, where pusher engines were turned for their trip back to Field. These first sections were generally handled by a crew out of the freight pool, hence the conductor's caboose returning to Calgary on the tail end. They were considered to be a real plum, just making your day when you got one because it was only a four hour stint instead of a probable twelve hour trip on a freight.

Prior to the construction of the Spiral Tunnels, due to steep grades and specific operating rules, all trains, together with their crews, were under the control of special Hill Conductors. At this time the section between Hector and Field was controlled by an electric staff system and was operated as a single block. Similar systems were used over the High Level bridge in Edmonton and between Medicine Hat and Dunmore. These were yet more examples of the lengths to which the Railway went to maintain safety.

Notice the bars on the window of the mail car and the mail hook beside the door. In many places mail was still handled by these hooks which could pick up a pouch of mail on the fly at about 30 m.p.h. It is easy to see what train travel was like before the days of air-conditioning as the windows are open on the coach and passenger heads are hanging out. That was the way to ride!

C. Littlebury

No. 2340, a 4-6-2 G3p built in 1926, stands eastbound at Stephen just after the pushers have been cut off the train. The rear portion of the consist is in British Columbia while the front part is in Alberta. The station, built in 1924 to replace a previous one, was a busy place 24 hours a day. Not only were there plenty of trains but the pusher engines had to turn on the wye and return to Field and Lake Louise. It should be mentioned that due to the 3% grade on the wye, steam locomotives always went up it head first to avoid uncovering their crown sheets. Since the tail of the wye crossed the highway, car drivers coming around the corner could be faced with a close encounter with a long row of driving wheels!

The 2300's were great engines, popular with the crews, but they did a better job when running on less steeply graded routes. Their high drivers caused them to be a little light footed and the engineer had to keep his hand on the throttle all the time, ready to shut off steam. If he failed to do this and the engine slipped, great holes would be torn in the fire due to the heavy draft and this would cause no end of trouble for the fireman.

Notice the large amount of ashes beside No. 2340. Firemen took advantage of this stop to clean and dump their fire instead of doing so at Lake Louise where they would take on water. It was easier to do one task at each stop rather than two at Lake Louise.

Beside the baggage car is a hand-operated track inspection car. These cars, sometimes known to railway men as "go to me/come from me" machines, could pull a small cart with tools.

Mount Bosworth (9,093') stands in the background.

Jan Booth

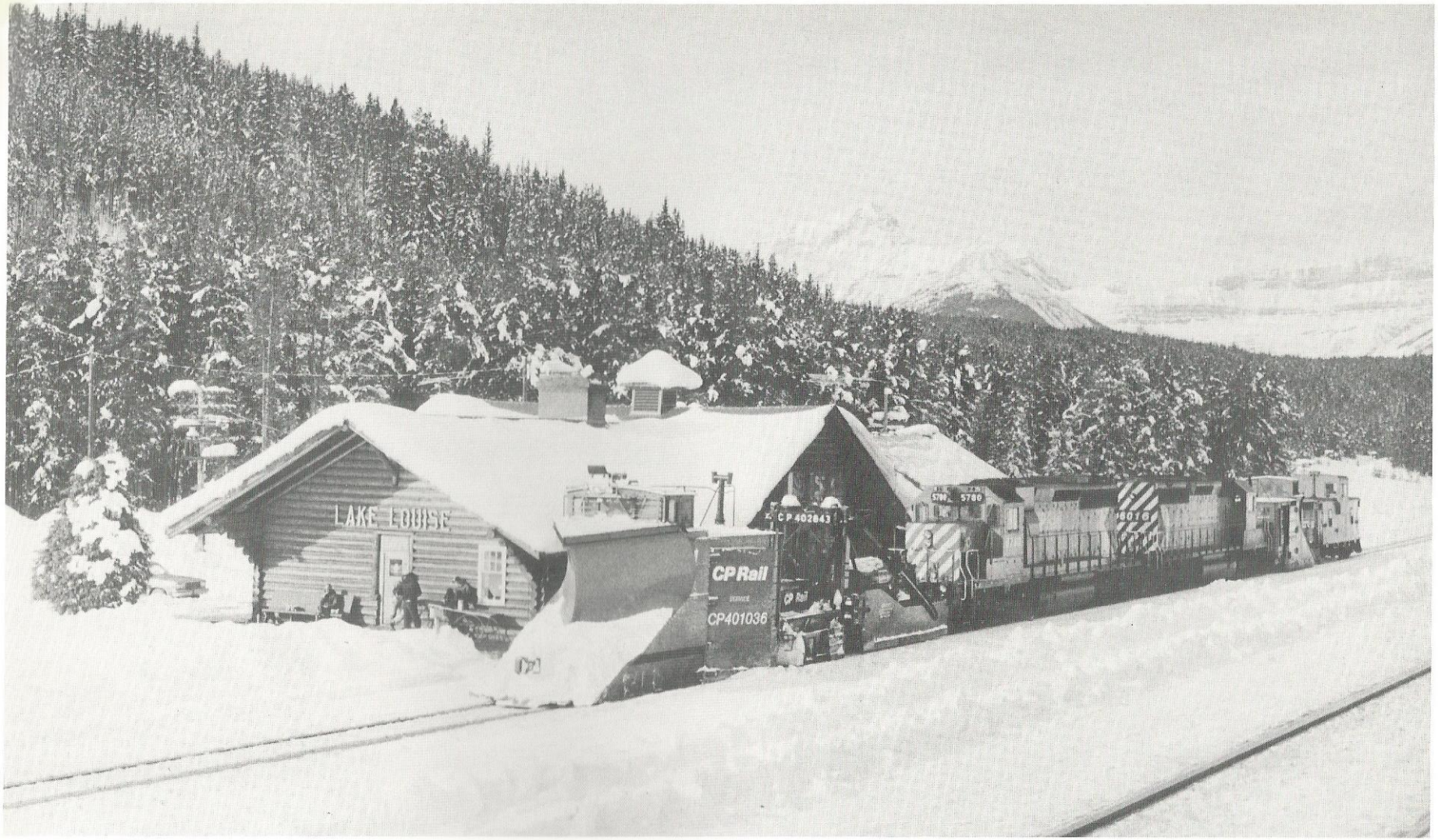
It is July 22, 1984 and a westbound freight waits at the end of the new grade at Stephen while a passenger train, No. 1 the "Canadian", crosses from the low line to the siding. Just out of the picture on the right is an eastbound freight waiting on the main line. The head end brakeman from this train is standing beside the tracks to check the oncoming train for equipment defects.

Train No. 1, headed by No. 6306 and three B units, has twenty cars in the consist. This is not unusual during the summer when tourist traffic is at its peak. It is interesting to note that Trains No. 1 and 2 always take the low line because the station at Lake Louise is situated beside that track. No. 6306 was formerly C.N. No. 6520 but in July 1984 was rebuilt and renumbered at Point St. Charles, Montreal.

The westbound freight, Train No. 603, is a fully loaded grain train, headed by Nos. 5838, 5966 and 5938, with mid train power, Robot No. 20 and slaves Nos. 5672 and 6024. The regrading of the section between Lake Louise and Stephen, completed in the fall of 1980 at a cost of $13.9 million, is part of a major railway program to increase main line traffic between Calgary and Vancouver. The other three grade reduction locations are all in B.C.

Between 1974 and 1977 six possible routes were studied, four south of Bow River-Bath Creek which were eliminated by early 1976, and two on the north where the highway and rail line were already established. One of the latter routes involved bypassing Lake Louise, thus enabling removal of the present line, and double tracking much of the 7.6 mile length. However the other proposal, known as Route C, was finally chosen because it was only 5.5 miles and could be completed in less time, required fewer bridges and crossings and less clearing of forest lands. The C.P.R. worked in close consultation with Parks Canada on all engineering and environmental aspects of the project to ensure that the adverse impact on the environment was kept to a minimum.

The decision to go ahead with the project was made on August 2, 1978 and work began almost immediately, when storage tracks and the wye used for turning snowplows were relocated from the Lake to Eldon, ten miles east of the townsite. The new line with its maximum 1% grade begins west of the Pipestone River crossing. For more than half its length the track follows the existing rail and highway corridor and ends close to the bridge carrying the Trans Canada Highway over the main line at Stephen.



David Wilkie

This typical present day winter scene at Lake Louise, on the east side of Field Hill, shows the beautiful log station and a snow plow extra standing on the eastbound main line.

The two SD40-2's are No. 5780 built in 1978 and belonging to Ontario Hydro, and No. 6016, one of a group built between 1980 and 1981 and owned by C.P. Sixteen of these units were bought by Ontario Hydro in 1978 to make other locomotives available for hauling coal trains between western points and Thunder Bay.

The consist has a wedge plow followed by a spreader for cutting ice and pushing snow to the sides, the two SD40's, another wedge plow and finally a caboose. The reason for a snow plow at each end is that in the event of a slide coming down behind the train, the caboose could be left at the nearest available siding and the train could return to work on the slide. In this way the train did not have to go down to Eldon, ten miles east of the Lake, to turn the plow on the wye. During periods of bad slides this procedure works well in keeping the Hill open for traffic. Both the Hill and Lake Louise receive large amounts of snow during the winter and I have been there when the temperature was – 50°F.

The sectionmen, who have to shovel out all the switches by hand after the plow passes by, seem to be taking a rest at the east end of the station. One of them is sitting on an old baggage cart used during the summer season when this platform is alive with tourists. The original log station, built in 1890, was two storey and classified as a combination station and section house. A second station, built in 1910, was intended to be an addition to this building, which would be altered to become a new baggage room. In fact, it was converted to a baggage shed and, by 1928, had been moved a short distance east to a spur, where it was used as a freight house. In 1978 it was dismantled and removed to Heritage Park in Calgary, where it has been lovingly restored, along with "Selkirk" No. 5934 and a live steam line around the park. Well worth seeing. The second station, with its marble floor and leaded glass window, was renovated in 1977.

The new 1% westbound grade can be seen at the bottom right of the picture while the train is standing on the original 1.75% grade.

Collection of Harvey W. Elson

Train No. 3 has just arrived at Lake Louise headed by No. 5932, a 2-10-4 T1c. Pusher No. 5929, a T1b, is just coming off the wye and will couple on to give the train a push as far as Stephen. Normally a 2-10-2 5800 engine was used as a pusher, although a "Selkirk" with only sixteen cars in the consist could manage alone up the grade. However, Train No. 3 must have at least twenty or more coaches to require another "Selkirk" as a pusher although it was common practice for Field to "borrow" Revelstoke engines for turns such as this but not enter them in the engine log book.

In front of the firebox is the compound pump for supplying the boiler with water. Note the large suction pipe below the firebox. When in freight service these engines could use 10,000 gallons of water in about an hour and a barrel of oil per mile. Thus two "Selkirks" working together like this made quite a sight.

The rear pair of wheels under the firebox of a "Selkirk" were driven by a steam engine called a booster. This was a great help in making very smooth starts with a heavy train on a grade and was also used up to a speed of about 10 m.p.h. The booster would disengage automatically at 20 m.p.h. but could be cut out manually at any time. Its tractive effort was 12,500 lbs. while that of the main engine was 76,900 lbs.

In the photograph on page 50, the 12,000 gallon tender belonging to No. 5932, is being filled with water to take her to Golden, B.C. It appears that Train No. 2, on the right, is holding the main line because, according to timetable instructions, it was a superior train. No. 3's conductor can be seen walking up with the two sets of orders for the head end, one for each locomotive crew. Train No. 2 has an observation car or "hayrack" as it was called by the crews and it is likely that there is another one on the tail end of Train No. 3. They were used during the summer months west of Calgary, being very popular with both tourists and train buffs.

To the left of the rock plow is the house where my parents lived during the early years when my father was a fireman on the original Field Hill. To the right are two tracks where passenger coaches were stored while the tourists were taken through the mountains by bus and then returned to the cars at night. These American Express Banner Tours went from Chicago to Los Angeles by way of Canadian Pacific's Soo Line, entering Canada at North Portal, Saskatchewan, then across to Vancouver on the C.P.R. and finally down the west coast of the States. The train made quite a sight on the Hill because the cars were all colors of the rainbow and included a C.P. day coach and diner, as well as equipment from several U.S. railroads.

Collection of Harvey W. Elson

BACK COVER

This shot taken on October 10, 1982 by BRMNA's second lady photographer, shows No. 5730 and two other SD40's heading an eastbound train of empty grain cars or "Trudeau hoppers" at Stephen.

As well as being the B.C./Alberta border, this point is also the Continental Divide, where a small stream running down from the mountain splits in two. Water from one half finds its way to the Atlantic via Hudson's Bay while the other flows to the Pacific, joining the Columbia River system at Golden, B.C. This is also a popular spot for tourists and train watchers.

The monument in the left foreground commemorates the discovery of the Kicking Horse Pass by Sir James Hector on September 2, 1958. This gentleman was the geologist, botanist and surgeon on the Palliser Expedition (1857-1860) and was 24 years old when he discovered the Pass, crossing from the west to the east. Later he went to New Zealand, became director-general of the Geological Survey there and was knighted in 1887. An authority on whales and dolphins, one species of each is still named after him. As far as we know, Hector's only return to Canada was in 1903 at the invitation of the C.P.R. and he arrived in Vancouver aboard a Company steamship. His son Douglas, who was travelling with him, was taken ill at Glacier and died at Revelstoke on August 17. Sir James decided to return home to Wellington, much to the disappointment of President Shaugnessy. However, before this departure he was photographed in Revelstoke in the company of Edward Whymper, the alpinist. Both individuals look very stony-faced in this presumably staged picture but perhaps that is only to be expected under the circumstances. Dying in New Zealand four years later, it is ironic that Hector never did get to see again the Pass he discovered and which has become the major route through the mountains for both road and rail traffic.

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